Pensions and Mortgages

Housing Investment Opportunities for the 80's

recognized that sufficient capital might no longer be available in future years to finance mortgages through their traditional source, the thrift industry. Changes in the laws governing the banking and thrift industries, and the prospect of further change, forced many of us to look for new ways to finance homeownership.

To widen the sources of housing finance, I have pursued a varied strategy aimed at four major goals: the modernization and improvement of GNMA programs; reaching out into capital markets in foreign countries; making FHA programs, processes, and negotiations more flexible and market oriented; and widening domestic resources for housing finance by eliminating barriers and attracting new funds to investment in mortgage instruments, especially pension funds.

We have had notable successes in all these areas. GNMA II is alive and meeting the needs of the contemporary secondary market. I was able to announce recently

monitoring survey recently initiated under HUD auspices has revealed that pension funds increased their mortgage related holdings by 58 percent between 1980 and 1983.

This document has two purposes. It chronicles our efforts to ease the way for pension funds to invest in mortgages and mortgage-backed securities, and to communicate about the advantages of such investments with pension fund managers. It offers some insight into the way we have worked with pension fund managers to demonstrate and enhance the appeal of mortgage-backed securities as sound investments for their funds. More importantly, this volume presents the distilled analysis and reactions of investment advisors, pension fund managers and secondary market participants in an effort to present you with the information necessary to explore the advantages of mortgage investments for your own pension fund.

We will continue to work productively with the private sector in helping to assure an adequate pool of capital to finance homeownership in America. It is a fitting relationship and, I believe, a promising partnership.

Samuel R Pierce Jr

Samuel R. Pierce, Jr.
Secretary

Secretary of Housing and Urban
Development

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This work documents a two-year public-private effort, pioneered by Samuel R. Pierce, Jr., Secretary of the Department of Housing and Urban Development, to attract major capital investors to housing. Although likened by one of the contributors to this publication to towing icebergs to the Saudis, the effort aimed at a goal neither impractical nor unattainable. Simply put, our goal was to learn how to attract more pension fund money into housing.

As the single largest pool of investment funds in the nation, pension funds had long aroused the interest of the housing finance industry. This interest quickened considerably, however, when it became apparent, in 1981, that legislation to restructure the stagnant thrift industry would have the effect of significantly reducing the traditional role of thrifts as the chief suppliers of mortgage credit, but at the same time might create new opportunities for non-traditional investors. With assets totalling over $500 billion and with investments in housing estimated at a minimal two to three percent of total assets, private pension funds seemed to be an untapped pool of resources for housing finance.

Those of us involved in this effort assumed that in the aftermath of deregulation of the industry, thrifts would diversify their investment. In order to minimize their risks, they would originate more mortgages for the secondary market and hold fewer in their own portfolios. This increased activity in the secondary market could in turn help to spawn new flexible investment vehicles that might be tailored particularly to the needs of pension funds.

Our goal of increasing pension fund investment in housing required a pioneering effort in communication between government and the private sector. Without applying coercion or even pressure, Secretary Pierce wanted to enable pension funds, the largest sector of the capital markets, to assess the merits of part of their investment strategies. Obstacles to competitive investment, whether legal, regulatory or inherent in the housing investment instruments themselves, needed to be identified and removed. In addition, the Secretary hoped to educate pension fund managers and their investment managers, through experts in the field, about the advantages of mortgage investments in yield, safety, and increasingly, liquidity.

The Department of Housing and Urban Development had already begun to work with the Department of Labor on changes in regulations under the Employee Retirement Income Security Act (ERISA). It was a widely held belief that restrictions on mortgage investment under those regulations, which frequently required time-consuming individual waivers, were a significant obstacle to mortgage investment by pension funds. However, even after the Department of Labor acted to provide class exemptions for most normal business transactions involving mortgages, as it did in May of 1982, we were still uncertain as to whether such actions were sufficient and how their implications were being interpreted by the nation's pension fund managers.

Beginning in late 1981, therefore, HUD began an intensive effort through a series of conferences and workshops to communicate with the nation's pension funds about housing investment instruments, the new opportunities of the mortgage secondary market, and the changed regulatory atmosphere under ERISA. In large part, this publication chronicles and distills that effort. Investment advisors from the major national firms highlighted the competitive features of mortgage investments, especially mortgage-backed securities. Advantages and disadvantages in cash flow, yield, liquidity and safety were presented and discussed at great length. Representatives of GNMA, FNMA, FHLMC and private issuers described new and projected investment vehicles and changes in

As it turned out, the reciprocation was not only forthcoming, it abounded, and occasionally surprised. ERISA regulations, though a significant issue, did not appear to be the primary reason for reluctance to invest. Information about the ERISA changes was absorbed readily, but some reluctance persisted on the part of many pension fund and investment managers. Tracking the source of that reluctance and identifying potential remedies became one of the major accomplishments of the entire communications effort. One key result of this reciprocal communication was the exploration of the extent of the problem of call protection.

To aid in planning the conferences, Secretary Pierce formed a Pension Fund Working Group which I chaired. The Working Group was comprised of representatives from the Federal National Mortgage Association, the Government National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Federal Home Loan Bank Board, the Mortgage Guarantee Insurance Company, Verex Assurance, Inc., the National Association of Home Builders, the National Association of Realtors and the Mortgage Bankers Association of America. Representing all sectors involved in housing investment, private and public, the Working Group provided oversight and attempted to convert the results of the communications effort into viable suggestions for policy and procedural changes that would improve the marketability of mortgage-backed instruments.

Following up on the success of the first two conferences held in February and June of 1982, the Working Group cooperated with HUD to hold a series of intensive work sessions. Small groups of pension fund managers were invited to full day meetings at HUD to discuss issues raised at the conferences in greater depth. In preparation for the working sessions the Working Group developed a workbook/agenda, which representatives how much of a learning process this whole initiative was. The workbook was built on our expectations about the importance of maturity ranges, short (1-5 years), medium (7-15 years) and long (over 15 years). It stressed the variety of new mortgage instruments, but recognized the growing problem of a need for standardization. It assumed what has now become questionable, that 30-year fixed mortgages were a thing of the past and that everyone - buyers, sellers, issuers - would have to live with a varied market. It provided information about "creative" financing vehicles and asked a series of questions intended to stimulate discussion about actual and potential problems with securities.

As it happened, most of the premises of the workbook underwent severe challenge in the work sessions. It became clear that the maturity time frames were too long, since most investors rarely if ever were looking beyond a 5-7 year range. A number of the pension fund managers indicated their strong belief that 30-year fixed, "plain vanilla" mortgages were more resilient than supposed. Moreover, to a man they voiced confusion and wariness about the alphabet soup of new mortgage vehicles spawned by the years of volatile interest rates. SAM's, GEM's, ARM's, VRM's, GPM's, GEM's - were all too festooned with an "awesome" array of "bells and whistles" to provide cautious investors with clear cut answers about cash flow, safety, and liquidity. The pension fund managers thus urged that instruments be standardized and limited to a workable number. FNMA, for one, which had previously bought as many as 120 different adjustable rate mortgages, has since responded by establishing only three types of adjustable rate mortgages for its programs.

However, the key issue, raised by pension fund managers in conferences and work sessions, and particularly at the final conference held in June 1983, was the issue of call protection. As an investment directly related to the homeowner's monthly payments, mortgage pass-through securities are subject to the vagaries of prepayments caused by the homeowner's desire to relocate, refinance, or rapidly reduce his outstanding principal. Mortgage-backed securities thus lack call protection as well as assurances as to average life and final maturity. Although we at HUD had begun our exploratory discussions with the pension funds knowing that call protection would surface as a flaw in mortgage-backed securities, we had not sufficiently gauged the strength of the pension fund concern with the issue. The Working Group concluded that, without a doubt, lack of call protection was the major remaining obstacle to increased investment by pension funds in housing securities.

The existing impediment to developing call protection is that mortgage pass-throughs have to qualify as Grantor-Trusts in order to avoid taxation at the issuer level, and under that provision the IRS prohibits active management of the mortgage pools. We are now working on strategies to enable mortgage pools to reinvest funds or to pay investors at different maturity ranges, thus providing call protection.

One approach, requiring legislation, would involve establishment of Trusts for Investment in Mortgages (TIM's), which would be authorized to reinvest principal and interest or to pay investors in sequence with varying payout rates. TIM's would provide call protection through either method. At the direction of the Cabinet Council on Economic Affairs, the Treasury Department is now drafting TIMs legislation on an expedited basis.

Another approach, not requiring legislation, would seek an administrative ruling from IRS allowing restricted reinvestment of principal under the Grantor-Trust rule for up to five years, pursuant to a contractual commitment in force when the mortgage pool was formed. A request for such a revenue ruling was submitted by HUD to Treasury.

As these initiatives go forward at the federal level, secondary market participants have already acted to improve their products. GNMA introduced its GNMA II program, a major feature of which is centralized payment. Investors receive single checks and a single payment advice covering all GNMA II holdings. The use of a central paying agent under the new programs will ease administrative work of investors and assure timely and accurate payments. It also allows for the creation of jumbo pools which offer some measure of call protection.

However, the largest recent innovation was undoubtedly FHLMC's introduction of its CMO, Collateralized Mortgage Obligations. Not ony was this the largest offering of a mortgage-related security in U.S. history, but FHLMC was able to structure what may be a program of the future. The CMO, backed by mortgages, includes three classes of bonds with short, intermediate and long term characteristics. Investors can choose the cash flow pattern they prefer and protect their yield for the length of time they desire. FHLMC guarantees the payout schedule for each class of investor. The initial favorable response to this instrument has confirmed the judgement of the many pension fund managers who pointed out the problem of call protection.

In one way or another, the advantages of call-protected securities will soon be extended to mortgage instruments. At that time, we expect that a new era will have dawned in mortgage finance, and that the firm new footing sought by Secretary Pierce at the beginning of this effort will have been found.

This publication, intended for managers of pension funds, recapitulates the process just outlined with the full substance intact. The first section describes the state of the mortgage secondary market, the innovations in instruments, the assessment by respected investment advisors of mortgage investments in four main areas: cash flow, yield, risk and liquidity. Then follows a brief discussion of direct investment in mortgages, a pattern heavily favored by multi-employer funds.

The third section takes you into our learning process, but in a way which we hope will provide additional insight into the workings of the mortgage markets. To some extent, it reproduces the give and take of the work sessions, playing the workbook/agenda against the comments of pension fund managers who participated in the conferences and work sessions. The next section provides updates on ERISA and the prudence rule, answering some typical questions about the law and regulations which were derived from the conferences. The final section discusses call protection strategies, the suggested solutions to the problem of standardization, the projected impact of a successful provision of call protection to MBS's and the status of regulatory and legal action.

We have reached our current awareness of the need for improvement in mortgage-backed securities, and have developed responses to that need, through a long, but rewarding, process. It was saved from being arduous by the openness and receptivity of the pension fund managers at our conferences, and particularly by the magnanimity and patience of those managers who travelled to Washington for long work sessions in an effort to learn and to educate. Perhaps we worked so well together in this common effort because we all believed that at stake was the foundation of a solid system of housing finance for the foreseeable future. Mortgage-backed investments have always been good, competitive instruments in the capital markets. Their consistency may be unmatched. But the capital markets are changing daily, and like all products, mortgage-backed securities must be tailored to the needs of the future.

Much of that future is in pension funds. It is our belief that so long as mortgage-backed investments meet the needs of the capital markets, they will meet the needs of pension funds. It is our hope that the actions we have taken and are pursuing will maintain and improve that competitive position. Finally, it is our belief that when you have examined this booklet, weighed its assessments and informed judgements, and seen its direction, you will come to agree that mortgage-backed investments should be a significant part of your pension fund's future.

Introduction

As several of the articles in this section on the "Secondary Market" indicate, most issuers and dealers of mortgage-backed securities assume that, in our current thrift deregulation environment, the secondary market will be the main source of housing funds. At our several conferences, we discovered varying levels of knowledge among pension fund managers about the operation and advantages of mortgage-backed securities. For some of our pension fund participants, we were obliged to follow up the information conveyed at the conferences with "primer" packages of basic information on mortgage-backed securities, while the sophisticated insight of other participants provided valuable direction for us.

Expectations about the increasing importance of the secondary market are borne out through an examination of the total net acquisitions in the market as a percent of originations. Since 1970, the importance of the secondary market fluctuated cyclically, increasing in bad financial times, decreasing in good. However, in 1980, there was a sizeable jump in secondary market importance, as net secondary market acquisitions leapt to 38 percent of originations. Then, in 1982, with the addition of FNMA and FHLMC SWAP programs, the percentage increased to almost 74 percent. This leap might have been considered just a reflection of a poor housing year, but for the first five months of 1983, it has continued, with net secondary market acquisitions at almost 71 percent of originations.

Within the secondary market, which includes all transactions involving already existing mortgage loans, a shift has occurred toward mortgage-backed securities. In 1970, when GNMA had its first issues, mortgage-backed securities accounted for 13 percent of the secondary market. By 1982, including the SWAP programs, they accounted for over 74 percent. With the increasing deregulation of the thrift industry, fewer mortgages are

ing Corporation and General Electric Credit Corporation. The ability to sell larg numbers of mortgages and securities backed by mortgages is testimony to the inherent soundness and competitive qua ity of mortgage-backed investments.

This section attempts to provide a common ground of information about the secondary market, as well as to update you on current developments among the major institutional participants in that market. For those well schooled in mortgage-backed securities, much of the early discussion may appear basic. How ever, the reports on future directions and current innovations will be of interest eve to those familiar with the market.

After the descriptions of GNMA, FNMA FHLMC and private issues, this section provides a series of analyses of mortgage-backed securities from the market perspective. Representatives of leading investment firms involved in the secondary market explain the advantage and necessary precautions involved in trading mortgage-backed securities. Firs articles on cash flow and yield describe the advantages of mortgage-backed securities over most of the fixed income market. Mortgage-backed securities can have yields 100-200 basis points above other long term instruments with similar ratings and security. In addition, their cas flow characteristics can frequently be more suitable to the needs of pension funds. An article on safety describes the elements providing for safe and secure investment in mortgage-backed securities, ranging from government guarantee to private mortgage insurance and collat eralization. The final article, on liquidity, reveals the increasing efficiency of the secondary market because of increased volume and active trading, which has made mortgage-backed securities even more tradeable than many bonds.

Government National Mortgage
Association

Introduction

The advent of mortgage backed securities may be as important to the financing of housing in America as the original invention of the mortgage itself and as the widespread introduction a half century ago of long term fully amortizing home loans.

While not as visible as the role a century ago of cross-continental railroad or, more recently, of orbiting communications satellites, the linkage over the past decade of local mortgage lenders to the national securities market has been no less dramatic in the way it has transformed residential financing into a single national marketplace.

The following provides a brief overview of where we are today in the securitizing of mortgages. Special emphasis is placed on the role of HUD and GNMA; other major participants are covered more specifically in separate articles.

Much of what is taking place at present in designing new mortgage lending practices is aimed specifically at pension funds. With the accelerated deregulation of thrift institutions, which traditionally financed over half of all housing transactions, knowledgeable people expect S&L's, banks and savings banks to diversify into shorter, non-mortgage assets, and perhaps to attract a smaller share of overall savings resources. People ask, then: where will mortgage money come from in the future? Pension funds offer promise both because of their relatively rapid expected growth in assets and the fact that, more than most institutions, they have a built-in need to hold a significant share of resources in relatively long-term assets.

Pension funds, and most other investors, prefer not to make direct investments in mortgages. Home financing traditionally has been a localized activity, requiring local market knowledge for underwriting and specialized staffs for servicing. Mortgage backed securities, however, transform awkward, unwanted mortgages in wholesale amounts into streamlined securities instruments. Mortgage-backed securities are a remarkably efficient engine for generating huge amounts of capital for housing from institutional investors.

Overview of Mortgage Backed Securities

The accompanying chart illustrates the array of mortgage backed securities by comparing six different issues. These are GNMA's, Federal Home Loan Mortgage Corporation participation certificates (PC's), Federal National Mortgage Association mortgage backed securities, and three totally private conventional mortgage backed securities. Of the latter, one is issued by a bank, one by a securities dealer, and one by a private mortgage insurance company.

A. GNMA Mortgage Backed Securities

GNMA, unlike in the other cases shown on the chart, is not the issuer or servicer of the securities. Rather, it acts as a guarantor of payments made by private issuers. The issuers are FHA-approved mortgage lenders. They pool only FHA and VA loans and then service the mortgage pools collateralizing the securities. These issuers also are responsible for marketing the securities. As a pool is being put together, the issuer will typically sell the securities to a dealer in a forward delivery transaction.

GNMA guarantees the timely monthly receipt, by the 15th of each month, of the scheduled principal due on the pooled is also required to be passed through the month following receipt.

GNMA's guarantee is backed by the full faith and credit guarantee of the U.S. Government. In addition, the fees charged issuers for the government guarantee are placed into a reserve fund to meet any claims by security holders.

The term of the GNMA security, as well as on all the other types shown on the chart, coincides with the term of the longest pooled loan. GNMA requires that a pool be composed of no less than $1 million although the minimum security amount which may be purchased at original issuance is $25,000. This does not preclude a security being issued for the entire amount of the pool.

GNMA securities, as well as each of the securities issued by the federally sponsored corporations, are exempt from the registration requirements of the securities laws.

B. FNMA Mortgage Backed Securities

FNMA recently introduced a mortgage backed pass-through securities program with many features similar to GNMA's, but with significant differences. FNMA is the issuer of its securities. The lenders (seller-servicers) sell loans to FNMA for the pools, and service the pooled loans. However, FNMA services the securities directly through a paying agent. That is, FNMA makes payments directly to security holders with payments mailed out by the 25th of the month. FNMA provides its full guaranty of the payments, which are computed in the same manner as GNMA's.

FNMA's securities generally are collateralized by conventional mortgage loans, though they have announced a program for FHA-VA loans as well.

To date, FNMA has marketed most of

Pass-Through Mortgage-Backed Securities Issued By

	Federally Owned or Sponsored Corporations			Private Companies		
Features	GNMA	FNMA	FHLMC	Depository Institution	Securities Dealer	Private Mortgage Insurance Co
Issuer	Seller-Servicer	FNMA	FHLMC	Bank	Securities Dealer	Private Mortgage Insurer
Pool Servicing	*Issuer*	*Seller-Servicer*	*Seller Servicer*	*Issuer*	*Issuer-Master Servicer*	*Issuer-Master Servicer*
Marketing	Issuer	Seller-Servicer or Issuer	Issuer	Issuer	Issuer	Issuer
Pool Composition	*FHA, VA and FmHA Loans*	*Conventional Home Loans*	*Conventional Mortgage Loans*	*Conventional Home Loans*	*Conventional Home Loans*	*Conventional Home Loans*
Payments to Investors	Scheduled Principal and Interest When Due Unscheduled Recoveries as *Received.*	Scheduled Principal and Interest When Due Unscheduled Recoveries as *Received.*	Interest Due and Estimated Scheduled and Unscheduled Principal Collections.	Collections Passed Through Balance Due Advanced Subject to Limitation of *Letter of Credit*	Collections Passed Through Balance Due Advanced Subject to Limitation of Pool *and Special Hazard* Insurance Policies.	Collections Passed Through Balance Due Advanced Subject to Limitation of Pool *and Special Hazard* Insurance Policies.
Guaranty	Yes, Full, Timely P & I	Yes, Full, Timely P & I	Yes, Full, Timely Interest, Full P & I	Yes. P & I Up to Amount of Letter of Credit.	Yes. P & I Up to Amount of Pool Insurance.	Yes. P & I Up to Amount of Pool Insurance
Backed by	Accumulated Reserves and Full Faith and Credit Guaranty of U.S.	Self Insured	Self Insured	Bank Letter of Credit Equal to 7% of Pool including Special Hazards.	Private Pool Insurace Equal to 5% of Pool and 1% for Special Hazards.	Private Pool Insurance Equal to 5% of Pool and 1% for Special Hazards.
Payment Date	*Received by 15th*	*Disbursed on 25th*	*Received by 15th*	*Disbursed on 25th*	*Disbursed on 25th*	*Disbursed on 25th*
Term	30 Years	30 Years	30 Years	30 Years	30 Years	30 Years
Minimum Pool Size	*$1 Million (SF Pools)*	*$1 Million*	*$100 Million*	*$5 Million*	*$25 Million*	*$5 Million*
Minimum Security Amount	$25,000	$25,000	$25,000. Other Denominations: $100,000, $200,000, $500,000, $1,000,000 and $5,000,000.	$25,000	$25,000	$25,000
SEC Registration	Not Required	Not Required	Not Required	Yes	Yes	Yes

C. FHLMC Participation Certificates

FHLMC-PC's represent participations in pools of mortgages which it purchases from eligible lenders. The securities are issued and administered by the Mortgage Corporation while the pooled loans are serviced by the institutions selling loans to the Corporation. FHLMC-PC's, unlike the other pass-through securities collateralized by conventional loans, may contain up to 5% of loans on multifamily properties. The other types limit their pools to loans on 1-4 family properties.

The Mortgage Corporation guarantees the timely receipt, by the 15th, of monthly interest at the face rate on the security. However, the scheduled principal payments due on the mortgages in a particular month may not be passed through as scheduled. The Mortgage Corporation makes principal payments to security holders based on the estimated receipt of scheduled and historically seasonally adjusted prepayments of principal. If actual prepaid principal collections are less than the amount estimated and actually paid during any given month, subsequent monthly principal payments may be used to repay the Mortgage Corporation for what amounts to an advance to security holders. The Mortgage Corporation guarantees that all pooled principal amounts will be fully repaid to investors.

The minimum pool size for PC's is generally $100 million with minimum securities in denominations as low as $25,000.

D. Private Firms' Mortgage Backed Securities

The chart depicts three other examples of mortgage passthrough securities. The examples involve issuances by a bank, a securities dealer, and a private mortgage insurance company. In each case shown,

surance on the individual pooled loans whose loan-to-value ratios exceed 80%.

Other similarities include disbursing payments to registered security holders on the 25th of the month and requiring each public issue to be registered with the Securities and Exchange Commission (SEC).

The major differences between issues of federally sponsored corporations and purely private firms is the nature of the guarantee to registered security holders. Each of the private conventional issues represented provides for the straight pass-through of collections of principal and interest, less established servicing fees, on the pooled loans collateralizing the pool. Shortfalls in amounts due on the mortgages, but remaining uncollected on the distribution date, are advanced by the issuers subject to amounts available under pool insurance arrangements. This is the maximum extent of the issuers' liability to security holders. The pool insurance provisions also cover shortfalls between amounts received on loan liquidations, including proceeds from mortgage insurance, and outstanding loan balances at the point of liquidation.

In the bank example, a letter of credit serves the purpose of pool insurance. The bank has agreed to advance funds to investors for shortfalls in scheduled amounts due and in loan liquidation proceeds up to the amount available under the letter of credit. After the letter of credit has been completely utilized, subsequent shortfalls in amounts due or on liquidated loans represent losses to the investor.

The bank in this example has also agreed to make additional advances to investors in situations where the letter of credit is only temporarily exhausted and expected collections from individual loan mortgage insurance policies are reasonably certain to be restored to the issuer. The amount of such supplemental advances is limited to 2% of the original pool amount.

The mortgage banking and PMI issuers

Recent HUD-GNMA Developments

Over the past year, HUD has taken a leadership role in encouraging homeownership affordability and a housing recovery through several new GNMA securities approaches:

Pools of 15-year loans became a popular vehicle for marketing homes during periods of high interest rates. Investors proved willing to accept lower yields for intermediate term loans. The lower rates on shorter term mortgages approximately offset the effect of shortening the term, so that monthly payments could be nearly the same on 15-year loans as on 30-year loans. Yet the buyers could own their houses without debt in half the normal period. During 1982, GNMA promptly adapted its single family program to accommodate such financing, and has guaranteed over $350 million in 15-year securities.

Growing equity mortgages (GEMs) also gained acceptance over the past year, and GNMA has introduced securities programs to finance GEM loans that FHA insures or VA guarantees. More specifically, two separate GNMA-GEM programs were established. One provides a homogeneous investment instrument in which all pooled loans have 4 percent annual increases in monthly payments over the life of the loans. This effectively assures that pools will be fully retired within 15 years. The other program allows for the pooling of any or all FHA-VA GEM loans.

10-year Graduated Payment Mortgages (GPM's) also can now be pooled as backing for GNMA securities. This step was taken in conjunction with Secretary Pierce's initiative in the spring of 1982 to expand home purchase opportunities for first-time homebuyers. The extension of the period over which monthly loan payments rise makes it possible to reduce mortgage payments in the early years below what was previously possible, and

GNMA II offers advantages for both investors and issuers:

For issuers

- *Lower Administrative Costs*—The central paying feature eliminates costs of a certificate holder registry and payments to securities holders every month.
- *Better Funds Management*—The payment date, the 25th of the month, reduces the need to make "advances" to security holders.
- *Mixing Loan Interest Rates*—Mortgages with different interest rates can be mixed within the same pool.
- *Securities Funding Choice*—Lenders have the option of packaging mortgages in a multiple issuer (jumbo) pool or in a custom pool.
- *One Stop Service*—peripheral services, such as pool processing, factor collection, pool accounting, and investor tax withholding and reporting are performed by the central paying agent.

For investors

- *Consolidated Payments*—Investors receive one check each month for all GNMA II securities.
- *Simplified Recordkeeping*—A single payment advice each month accounts for all GNMA II certificates held.
- *Timeliness of Payment*—Monthly payments are always accurate and on time.
- *Greater Predictability*—Large, geographically dispersed multiple issuer pools improve the consistency of mortgage prepayments making GNMA II's a more stable element of overall investment strategy.
- *Government Guaranty*—As with the over $150 billion of GNMA securities issued, GNMA II securities carry the full faith and credit guaranty of the United States Government.
- *Convertibility*—Holders of traditional GNMA securities have the option of converting to GNMA II's.
- *One Stop Service*—Since the paying agent and transfer agent are the same bank, reregistrations are quicker and error-free.

The GNMA II Program

Pension funds and other institutional investors have made GNMA aware, over the years, of a number of technical innovations in the GNMA securities program that would enhance their interest in Ginnie Maes. Most importantly, as holdings of GNMA's have grown to extraordinary amounts, the administrative costs of reviewing and accounting for large numbers of payments from many different issuers each month have become increasingly burdensome.

Recent strides in technology have created an opportunity to make the needed improvements. The need, coupled with this opportunity, has led HUD to decide to introduce a comprehensive new generation of GNMA securities – GNMA II.

Beginning in the summer of 1983, HUD began a menu of GNMA II programs. These will be in addition to, not in place of, the existing array of GNMA securities. Issuers and investors will be able to choose for themselves whether to use the new approach or to stay with the traditional methods. There will be a GNMA II program for each of the following types of FHA-VA mortgages:

- Single family level payment mortgages
- Graduated payment mortgages
- Growing equity mortgages
- Manufactured housing loans

A. GNMA II: Key Features

The new programs are the culmination of the rapid evolution taking place in the "securitization" of mortgages. The increased efficiencies in issuing and administering Ginnie Maes, coupled with their absolute safety as an investment, should translate into lower borrowing costs for homebuyers – and that ultimately is the purpose for the new initiatives.

- ***A central paying agent*** will make all principal and interest payments to investors. This enables holders of more than one GNMA II certificate to receive a single check and payment advice each month covering all their holdings. It also helps assure timely, accurate payments every month. Above all else, GNMA II adds convenience and ease in recordkeeping to the absolute safety, high yield, and liquidity that have long been the hallmarks of GNMA securities.

- ***Large (jumbo) multiple issuer pools*** will provide investors with geographic diversity and greater prepayment consistency. Custom pools will remain an option for issuers and investors seeking pooled loans within a single geographic area, other special pool characteristics such as short maturities or below-market interest rates, or simply preferring the single issuer approach.

- ***Loans with different interest rates*** can be mixed within the same pool. In periods of fast changing interest rates, this feature also will be necessary if FHA or VA moves to an environment of negotiated interest rates, without a ceiling, and to adjustable rate mortgages. The range of rates within a pool is limited to 1 percent.

- ***Conversion of GNMA I pools to GNMA II*** will be possible in many instances, enabling investors to receive a single monthly check for most or all of their GNMA holdings.

- ***One stop service*** will be provided by the central paying agent, including such functions as new pool processing, securities transfers, unpaid pool principal factor collection and dissemination, pool accounting, and investor tax withholding and reporting. This will speed up service to both issuers and investors, and relieve issuers of the need to maintain securities holder registers and payment records.

Under the single issuer, or custom pool, approach individual issuers assemble pools of mortgages based on which they issue and market securities, as in the present, GNMA I, program.

Multiple issuer pools will be formed through the aggregation of individual issuers' loan ***packages.*** Under this option, packages submitted by various issuers for a particular issue date and securities interest rate are aggregated into a single ***pool*** which backs a single issue of securities.

The individual issuing firms are responsible for marketing securities in amounts equal to their own loan packages. The securities thus marketed are based on a prorated interest in the aggregate pool, not on just the specific mortgages contributed by the particular issuer. GNMA is not a party to the securities marketing contracts and, as in GNMA I, does not assure delivery of securities.

GNMA will announce periodically the securities coupon rates available for each jumbo pool program each month. As market conditions change, additional coupon rates will be made available as necessary.

* * *

GNMA II is a dramatic and exciting step forward in the efficient financing of housing through the secondary market. HUD looks forward to working closely with pension funds and others in the investment community in making this unique public-private partnership a success.

The guaranteed mortgage-backed security - including Fannie Mae's version, introduced in November 1981 - has made significant progress in tapping nontraditional sources of capital, channeling the funds into the mortgage market. It is the purpose of this chapter to discuss Fannie Mae's security and to explain the characteristics that have successfully attracted wide participation by both lenders and institutional investors such as pension funds. To put the story against a proper background, however, it is necessary to talk first about the evolution of the secondary market - and to introduce pension funds to Fannie Mae, the largest institution in that market.

Changing Role of the Secondary Market

A formal secondary mortgage market was created in the Thirties when Congress established the Federal National Mortgage Association. The purpose of such a market - and of Fannie Mae, as the Association soon came to be known - was clear and simple: to provide supplementary capital to primary mortgage lenders, thus helping to retain liquidity and making possible an ever-replenishing source of mortgage money.

For many years, conditions in the marketplace dovetailed nicely with this concept of the secondary market as essentially supplemental. Until the Seventies, most thrift institutions held in their portfolios the bulk of the mortgages they originated; in 1970, for example, only about a third of mortgage originations were sold in the secondary market.

By the early Eighties, however, it was clear that the role of the secondary market - and Fannie Mae - had to change; primary lenders by this time were looking to the secondary market to play a more central role. In 1980, 49 percent of mortgage originations were sold in the secondary market, and savings and loan associations - the traditional providers of

crisis conditions struck the mortgage marketplace and these institutions struggled to keep their liquidity.

This drastic change from the traditional pattern in the mortgage finance marketplace came about when depositors, in the late Seventies, began to foresake the thrift institutions (which paid low, federally regulated returns on deposits) for higher returns. Today, after considerable upheaval in the financial services industry and extensive deregulation of the nation's depository institutions, deposits - albeit at higher costs and shorter terms - are flowing back to the thrift institutions.

The nature of this new deposit base, resulting from thrifts' authority to offer insured money market accounts, portends a move from investment in 30-year fixed-rate mortgages in favor of shorter-term, higher-yielding assets such as consumer and commercial loans. While they will doubtless still deal in mortgages, thrifts will probably function in the future more like mortgage bankers, structuring the home loans they make for sale, so that they can manage their portfolios more effectively. To the extent that they continue to invest in the mortgages they originate, thrifts will want adjustable rate products that are saleable to the secondary market. Mortgage bankers, meanwhile, who have always relied for funding on the secondary market, had increased their share of mortgage originations to almost 30 percent in 1982 - thus enlarging the role of the secondary market still further.

These developments have one chief implication for the secondary market and for institutions like Fannie Mae: the secondary market must find more and more capital to meet the demand of mortgage lenders and aspiring home owners. To accomplish this, the institutions of the secondary market will have to become more efficient intermediaries between the capital markets and the mortgage market, and the mortgage-backed security is proving to be part of the answer.

named Freddie Mac. All have been successful in their own ways at channeling funds from the capital markets to the housing market, and all have introduced versions of the mortgage-backed security

Ginnie Mae pioneered the effort in the early Seventies by introducing a security, backed by FHA and VA loans, which carries a "full faith and credit" guarantee fron the Federal government. The Ginnie Mae security has been highly successful; it has been embraced by investors as a convenient way to invest in mortgages without having to be involved with the underlying individual loans. As a result, Ginnie Mae securities since their inception have attracted more than $150 billion in capital to investments in FHA and VA mortgages

The Freddie Mac pass-through security was introduced soon after Ginnie Mae's product to serve the conventional market. It too has been successful - primarily in moving capital within the thrift industry.

Fannie Mae, however, is the institution in the secondary market which has taken significant initiative in attracting new investors to the market for mortgage-backed securities. The corporation's success reflects not just the bond-like design of the Fannie Mae security itself, but the stature of Fannie Mae in the mortgage and capital markets. As the nation's largest investor in home mortgages, and as one of the largest borrowers in the capital markets, Fannie Mae's name is widely recognized and respected in the investment community.

The Evolution of Fannie Mae

Fannie Mae, now a shareholder-owned (NYSE), privately managed corporation, was initially a government agency in 1938. In 1954, it became a mixed-ownership corporation, owned partly by shareholders and partly by the government. Then, in 1968, Congress split the original corporation into two separate en ties: the aforementioned Ginnie Mae, which remained part of the Department o supporting, tax-paying corporation. Though many people are still confused on these points, it is a fact that Fannie Mae receives no government subsidies, no government appropriations, is owned by its stockholders - and pays taxes at the full corporate rate.

Fannie Mae's corporate identity changed in 1970, but many of its old practices and characteristics from the government days hung on for more than a decade. The company continued, for example, to provide forward, optional delivery commitments to lenders and to finance its mortgage purchases with funds borrowed in the capital and money markets. Earnings were derived from the spread between the cost of funds and the yield on Fannie Mae's portfolio - and, to a much lesser extent, from fees charged to lenders for services rendered them by the company.

This strategy served the corporation well - until 1979, when short-term interest rates suddenly began to outrun long ones. Unlike previous aberrations in the economy, this one was not so temporary; interest rates rose and stayed high - and Fannie Mae, for the first time in its history, began to experience earnings difficulties.

Meanwhile, the thrift industry, which heretofore had been the mainstay of the mortgage finance market, was in crisis - losing money and deposits and undergoing the most sweeping regulatory changes in its history.

Against this background, a new Fannie Mae management team took over in May 1981. Since that time, the company's business operations - and indeed its entire philosophy and approach to the market - have been completely changed. Within two years - by the end of first quarter 1983 - the company was again operating profitably.

The company's successful turnaround effort was engineered through the implementation of a short-term strategy and a longer-term strategy. The last included a completely new offering by the company

conditions in the housing market that were the worst since World War II, Fannie Mae achieved its highest business volume ever, buying more than $15 billion in mortgages.

As recently as 1980, the 30-year fixed-rate mortgage accounted for all of Fannie Mae's mortgage purchases. The interest rate volatility of the early Eighties, however, made such mortgages less attractive to Fannie Mae and to many mortgage lenders. At the same time, most home buyers found it impossible to qualify for traditional 30-year fixed-rate mortgages because interest rates were at double-digit levels. Fannie Mae, therefore, developed many new kinds of mortgages designed both to ease the affordability problem for consumers and to provide a better asset/liability match for the corporation. Adjustable rate mortgages, for example, accounted for 27 percent of Fannie Mae's commitments and 21 percent of its purchases in 1982, the first full year in which the corporation bought them. In addition, Fannie Mae made shorter-term second mortgages an important part of its business.

Fannie Mae's entirely new offering - aimed at serving the corporation and the market in the years ahead - was the FNMA guaranteed mortgage-backed security. It was developed not only to enhance the corporation's role as a conduit of funds into housing, complementing Fannie Mae's role as an investor, but also to provide a source of long-term steady income to the corporation.

The FNMA Guaranteed Mortgage-Backed Security

It is striking that Fannie Mae's new mortgage-backed security, young as it is, provided roughly $14 billion in liquidity in 1982: a figure almost equal to the $15 billion level of Fannie Mae's mortgage purchases - itself a record annual volume of purchasers for the company. That MBS

to be attracted into the housing market, a standardized investment vehicle is needed. The Fannie Mae mortgage-backed security was specifically designed to create this link.

The Fannie Mae mortgage-backed security has taken the essence of Ginnie Mae's MBS concept and refined it to meet better the needs of investors.

The securities carry, first of all, a 100-percent guaranty of full and timely payment of principal and interest. This quaranty, although not providing the "full faith and credit" of the Federal Government as does Ginnie Mae's, is nonetheless highly reliable because it provides several layers of protection: The loans are originated in accordance with the same underwriting procedures Fannie Mae uses for its own mortgage purchases. The mortgages are serviced by experienced, approved lenders who adhere to Fannie Mae's rigorous policies and whose work is closely monitored by the company. These lenders are required to make up any shortfall in mortgage payments. If for any reason they do not, Fannie Mae itself is pledged to do so. Finally, Fannie Mae's long and successful experience in the secondary mortgage market gives investors a high level of confidence in the safety of their investment in the FNMA mortgage-backed security.

Fannie Mae's security is convenient as well as safe. Its certificates are standardized and involve minimal paperwork. In addition to a central paying agent, Fannie Mae uses a central transfer agent to maintain a securities register and to handle transfers. Fannie Mae's fixed-rate securities are issued in accordance with master legal agreements; a Fannie Mae MBS issued by a small Midwestern bank is the same as one backed by loans from one of California's giant thrift institutions. Moreover, the availability of the MBS to lenders nationwide assures the high volume of securities issuance that is necessary for optimal liquidity.

The securities encompass many differ

investor to select a maturity and instrument type that best suits its particular investment strategy. With this kind of versatility, mortgage-backed securities can now meet the needs of institutional investors seeking short-term, intermediate-term, or long-term maturities.

The minimum amount a lender may pool for Fannie Mae's securities is $1 million. The corporation has developed a multiple-lender plan, however, which makes it possible to combine a number of smaller pools into one large one. Securities backed by such a pool provide investors with greater consistency in prepayment experience - an important consideration. These multiple-lender securities allow the law of large numbers to work - thus minimizing the "fast-pay, slow-pay" problems that might be encountered if the pools were smaller. While these larger pools can provide significant geographic diversity - a feature that appeals to some investors - Fannie Mae also has the ability to tailor pools to include mortgages backed by properties located in a single State or limited geographic area.

In addition, Fannie Mae enforces, wherever it is legally permissible, a due-on-sale requirement on the mortgages backing its securities. This mitigates the longer loan life, lower yield phenomenon associated with rising interest rates.

Yields on mortgage-backed securities have generally been highly competitive with yields on other investments with similar maturities. Historically, these securities have out-performed AA corporate bonds and long-term Treasuries. (See accompanying figure on page 18.)

A major achievement of this security has been its ability to tap wholesale sources of capital on the one hand and to aggregate fund demand on the other hand - so that mortgage borrowers can compete effectively with large corporate borrowers for needed funds.

In the long term, the Fannie Mae

lower-yielding loans from their portfolios for the securities. The reason for this, of course, is that mortgage-backed securities, unlike the mortgages underlying them, are highly liquid. They can be used by financial institutions as collateral for many kinds of borrowing and can be sold to a far broader investment base than mortgages themselves. Thus, these securities have been an important source of liquidity and a significant portfolio restructuring tool for many thrift institutions - and the thrifts have been responsible for creating a major market for them.

At the same time, however, Fannie Mae has expanded the base of investors with which it does business. Almost two-thirds of MBS sales in 1982 - securities either placed privately by FNMA or publicly offered during the year - were to pension funds and other nontraditional investors. The pensions have been attracted to Fannie Mae's MBS for two principal reasons:

- First, Fannie Mae has made real strides in dealing with the objections that fund managers raised to other, earlier mortgage-backed securities: the lack of a sufficient guaranty, for example; the absence of standardization, and the red tape that had previously been associated with such investments.
- Second, Fannie Mae and others have made strong efforts to educate pension fund managers about the investment opportunities presented by mortgage-backed securities. The Department of Housing and Urban Development, for example, has sponsored a series of meetings and published a workbook on the subject for fund managers. Fannie Mae has taken part in these efforts and is also sponsoring, for the second year, a series of seminars around the country for institutional investors.

While understanding of - and investment in - mortgage-backed securities is increasing, additional refinements are

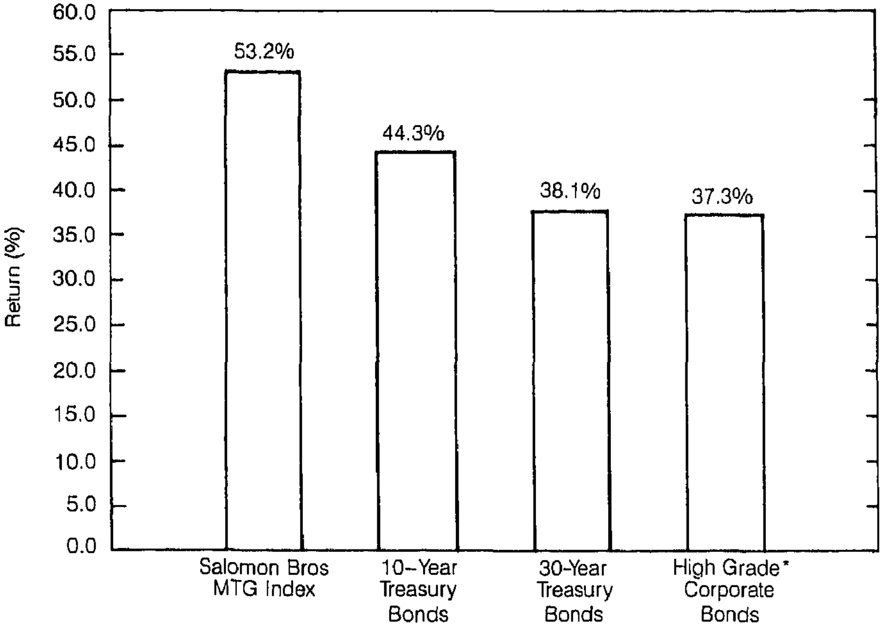
actively than they are currently allowed to do under existing laws and regulations. Such active management, for example, could involve the reinvestment of principal prepayments - which is not permitted under the existing tax code and current IRS regulations.

Another obstacle for mortgage-backed securities has been confusion about Federal pension law and investments in mortgage-backed securities. ERISA, the major Federal pension statute, and the regulations implementing it have posed obstacles, both real and apparent, to fund managers considering investments in mortgage-backed securities. HUD has had some success in dispelling misconceptions on this subject - although many fund managers remain uncertain about the guidelines, and additional educational efforts are needed.

Meanwhile, Fannie Mae officials are at work daily to educate lenders, investment advisors, and fund managers about the benefits of investing in Fannie Mae's mortgage-backed securities. Mortgage lenders have been especially effective in working with pension fund managers and arranging private placements of mortgage-backed securities. Fannie Mae has participated in a number of such transactions which underscore how the MBS can be both flexible and standard.

The Maryland State Retirement System, for example, committed to purchase $20 million of Fannie Mae's mortgage-backed securities from Loyola Federal Savings and Loan, one of Maryland's largest thrift institutions. The underlying loans are secured by single-family, owner-occupied residences, most of them newly constructed and all of them in Maryland. The transaction was precisely tailored to the pension fund's particular need: a five-year, guaranteed liquid investment at a market yield. Working with Fannie Mae the lender was able to meet these spe requirements. And in the bargain, the State pension fund was able to fulfill o

Comparative Total Return
March 31, 1978 to March 31, 1983



Source: Salomon Brothers Inc High Grade Corporate Bond and Mortgage Pass-Through Rate of Return Indexes and Salomon Brothers Inc Analytical Record of Yields and Yield Spreads

* The total return given is derived from a composite index based on AAA and AA corporate bonds.

mount importance to the fund, it is taking the opportunity to stimulate the local economy as well.

In another transaction, a lender approached the Nashville-based Paper Industry Union about investing in Fannie Mae's MBS. The securities were actually collateralized by loans made by a consortium of local lenders. All the mortgages were made to home purchasers within the City of Nashville and nearby counties, and most were for newly constructed, owner-occupied homes. The loans were fixed-rate, 30-year mortgages. In accordance with guidelines established by the fund, borrowers could not have a gross income in excess of $50,000. The securities provided a solid return to the pension fund's participants. The fund's investment also helped to make housing available to more prospective home buyers, while stimulating the local housing industry.

This kind of direct involvement by lenders in the marketing of mortgage-backed securities, a feature based on Ginnie Mae's original design, leads to economies of scale - higher volumes and enhanced liquidity - because a nationwide network of lenders and their sales staff extend the reach of the guarantor.

Toward the Future

The mortgage-backed security devised and introduced by Fannie Mae, then, represents real progress in the effort to attract new sources of investment capital to the residential mortgage market. It accomplishes this goal, moreover, while offering investors quality and attractive yields, and other essential features. Concurrently, Fannie Mae will continue to fine-tune this important instrument while identifying and developing additional sources of capital for housing. Over the remainder of the decade, the demand for mortgage credit may well top $1.6 trillion. If the secondary market continues to finance at least 50 percent of mortgage

Whole mortgage loans typically have coupon rates competitive with those of corporate bonds, but they pose unusual costs and risks that limit their appeal to pension funds and other institutional investors. Available statistics show that pension funds invest relatively little in whole residential mortgage loans. Some groups have reacted to these figures by suggesting that the funds ought to be compelled to devote more resources to housing. Freddie Mac's position is quite different. We believe the right approach is to design mortgage-backed securities that preserve the competitive yields mortgages offer while limiting the special costs and risks they pose. Indeed, we have been successful at doing that. A recent study of the holders of our Mortgage Participation

tor. We have offered other securities that, by design, are even more attractive to institutional investors. This chapter reviews what Freddie Mac has done already to create attractive, marketable securities and describes some of our current development activities that will result in a variety of new mortgage-backed securities in the future.

How Freddie Mac Operates

The principal activity of the Federal Home Loan Mortgage Corporation, known as Freddie Mac, is the purchase of first lien, fixed-rate conventional residential mortgage loans and participation interests in such loans, and the resale of the loans as guaranteed mortgage

selling loans at a positive spread, rat
than holding them in portfolio, Freddie
Mac avoids interest rate risk. This strategy has enabled Freddie Mac to be
highly profitable in volatile interest rat
environments that have severely teste
unhedged portfolio lenders.

At the present time, Freddie Mac bu
mortgages and issues PC's under two
programs: the standard program and th
Guarantor - or SWAP - program. In th
standard program, mortgages are purchased from a variety of lenders and
packaged for sale by Freddie Mac as
PCs. In the Guarantor program, Fredd
Mac purchases mortgages generally
from one seller and, in exchange for t
mortgages purchased, sells PCs to th
same seller representing interest in th

Figure 1

Mortgage-Backed Securities: Challenge and Response

Challenge: As Investments, Mortgages Suffer From:

—Origination and servicing costs.

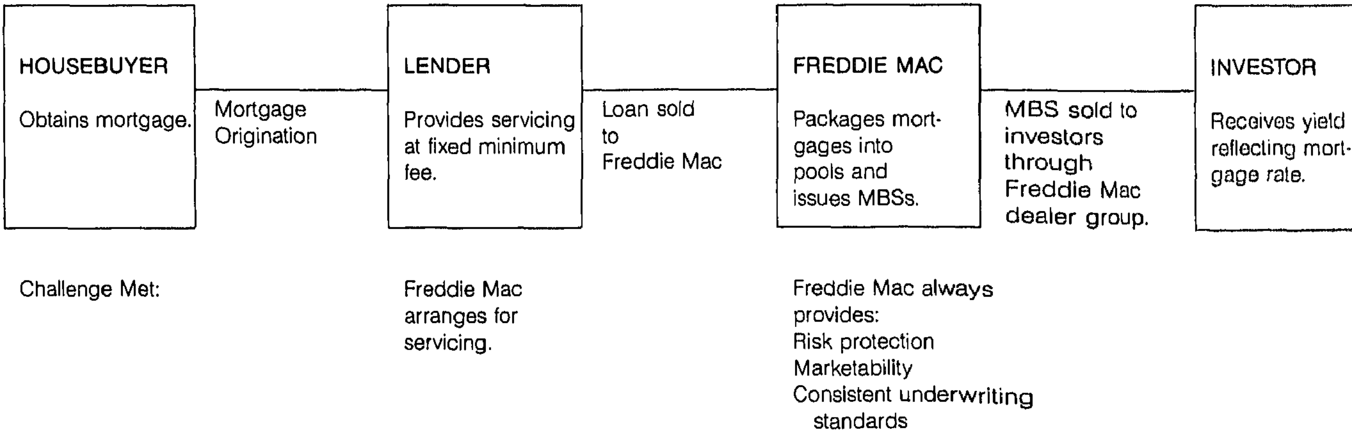
—Default risk.

—Lack of marketability.

—Gradual repayment of principal.

—Uncertain maturity.

Response: Freddie Mac Converts Mortgages Into Mortgage-Backed Securities (MBSs).


HOUSEBUYER
Obtains mortgage.
Mortgage Origination
LENDER
Provides servicing at fixed minimum fee.
Loan sold to Freddie Mac
FREDDIE MAC
Packages mortgages into pools and issues MBSs.
MBS sold to investors through Freddie Mac dealer group.
INVESTOR
Receives yield reflecting mortgage rate.
Challenge Met:
Freddie Mac arranges for servicing.
Freddie Mac always provides:
Risk protection
Marketability
Consistent underwriting standards

ented by the excess of the effective interest received from the borrowers above the interest paid to the holders of the securities, is taken as management and guarantee income over the life of the mortgages. Freddie Mac has recently issued another type of mortgage-backed security, the Collateralized Mortgage Obligation (CMO), which is described in greater detail below.

Figure 1 provides a simple description of the process that converts a home buyer's mortgage loan into a guaranteed mortgage-backed security held by an investor. In this hypothetical example, the borrower obtains a mortgage loan and the lender then sells the whole loan to Freddie Mac and receives a minimum servicing fee, currently 37½ basis points (.375) percent). (Actually, lenders almost always sell participation interests in the mortgages rather than whole loans – about 95 percent of the mortgages we buy involve participations.) The lender retains any interest income in excess of Freddie Mac's required yield. Freddie Mac underwrites the mortgages, groups them into pools, and sells them in the form of guaranteed mortgage-backed securities. Freddie Mac's total management and guarantee fee depends on the difference between the price at which it buys mortgages and the price at which it issues mortgage-backed securities, and on the repayment pattern of the mortgages. This chart also shows how Freddie Mac securities meet the challenge of making mortgage instruments attractive to the investment community. This challenge is discussed below.

Whole mortgage loans are complex investments. Their yields may be attractive, but their cash flow, maturity, marketability, risk characteristics, and servicing requirements are not. Mortgage-backed securities eliminate much of the marketability, servicing, and default risk disadvantages associated with mortgage investment.

ally eliminated this as well through strict underwriting standards, insurance on the individual mortgages, and guarantees on the payments to the security holders.

Establishing uniform, known underwriting standards for pooled mortgages makes shares in different pools homogeneous. This adds to the marketability of the investment. Marketability is also increased by a high volume of trading which makes it easier to match buyers and sellers.

Mortgage-backed securities overcome the servicing disadvantages of mortgage investment by separating the origination and servicing functions from the mortgage investment function. To the investor, the pool merely represents a stream of payments of principal and interest.

Finally, mortgage-backed securities also address some of the cash flow and maturity problems. For example, they can be structured to have cash flow similar to bonds. The use of options such as prepayment penalties or due-on-sale clauses can add certainty to the maturity of the mortgage.

The Freddie Mac PC

As we have noted, Freddie Mac generally does not hold the loans it purchases in portfolio. Each day, PCs with settlement dates based on that day's mortgage purchase results are auctioned in the capital market to a group of securities dealers who make a market in the PCs. Based on the results of this auction and the trading of current coupon PCs in the market, the required net yield for each program is set for the next day. This section considers the securities in greater detail.

Freddie Mac introduced the Mortgage Participation Certificate in 1971. In 1976, it became the primary instrument for funding Freddie Mac's purchases of mortgage loans. The PC represents an

expects to develop PCs backed by the adjustable rate and the 15 year mortgages that we have recently started to purchase.

The investor's risk of loss due to default is minimized in a variety of ways. Pooling a large number of loans itself reduces this risk through diversification. In addition, each individual mortgage purchased must conform to Freddie Mac's credit, appraisal, and underwriting guidelines. These guidelines are designed to evaluate the credit standing of the borrower and the value of the real property securing the mortgage. If the loan-to-value ratio is higher than 80 percent, the loan generally must be covered by a qualified mortgage insurer. The only exceptions are when the seller retains at least a 10 percent participation interest in the mortgage or agrees to repurchase or replace the mortgages in the event of default. Mortgages with loan-to-value ratios above 95 percent are not purchased. Most importantly, Freddie Mac guarantees to the PC holder timely payment of interest at the certificate rate and the ultimate collection of principal. To back this guarantee, Freddie Mac sets aside contingency reserves. The conservative standards for underwriting plus required mortgage insurance, in certain cases, means that even if a default should occur, Freddie Mac may not suffer a loss, since the amount realized upon disposition of the property and recoveries under applicable mortgage insurance policies may be sufficient to pay all principal, interest, and foreclosure expenses.

A further protection to investors in Freddie Mac securities is provided in the authority of the corporation's Board of Directors to require the Federal Home Loan Banks to guarantee the corporation's obligations; because of the financial strength of the corporation, this power has never been used. As a result of all these features, investors can be assured of the safety of Freddie Mac interest and return of principal from all PCs owned. Also, Freddie Mac announces on the first of each month the factor that will be used to calculate PC payments of principal and interest for the following month. This allows investors 45 days to prepare for reinvestment. Another feature is that Freddie Mac PCs are available from large pools (currently up to $650 million), allowing investors to make large purchases from a single pool.

Freddie Mac issues PCs under both the standard program and the Guarantor program. Under the standard program, Freddie Mac pools newly originated mortgages from many different originators; thus, the mortgages grouped together to be sold as PCs can represent different regions and interest rates. Individual pools have initial unpaid balances of at least $50 million and consist of 500 to 1,500 mortgages. Under the Guarantor program, the PCs are based on mortgages purchased from a single seller. As a result, the mortgages are more likely to represent a single geographic area. Further, Guarantor pools can be considerably smaller than those from the standard program. In November 1982, Freddie Mac reduced the minimum pool size to $1 million in the Guarantor program.

When the Guarantor program was originally designed, it helped the thrift industry improve the liquidity of old, low rate mortgages in a period of high interest rates and severe disintermediation. As such, it was extremely successful, with more than $20 billion of Guarantor PCs sold in 1982 alone. However, the concept of a single originator exchanging mortgages for PCs based on those same mortgages has advantages for newly originated mortgages as well. For example, large lenders who can efficiently package loans and sell securities may wish to exchange mortgages for PCs with Freddie Mac's guarantee. Freddie Mac has recently introduced a

Integration of Mortgage and Capital Markets

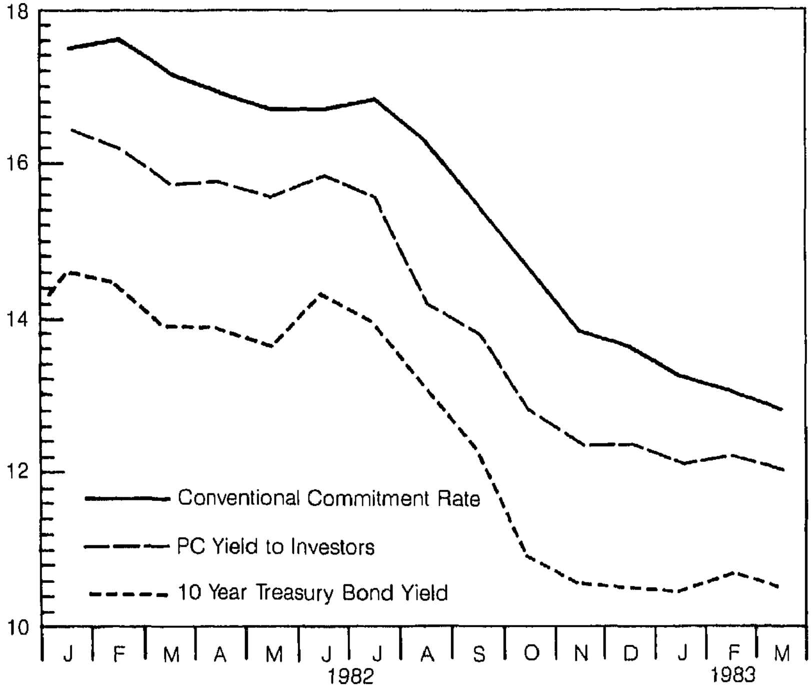


Table 1

Distribution of Outstanding Baseline PCs By Investor Types
(As of August 1982)

	Holdings *Before* *Nominee Breakout* $ (millions)	%	Holdings *After* *Nominee Breakout* $ (millions)	%
S&Ls	$ 7,722	43.9%	$ 7,925	45.1
Nominees	5,957	33.9	—	—
Pension Funds (public/private)	1,118	6.4	3,216	18.3
Insurance Companies	458	2.6	1,705	9.7
Dealers	429	2.4	429	2.4
Credit Unions	391	2.2	468	2.7
Savings Banks	282	1.6	1,141	6.5
Bank Trusts	225	1.3	225	1.3
Bank Portfolios	187	1.1	516	2.9
State/Local	156	.9	404	2.3
Corporations	139	.8	360	2.1
Investment Co.	99	.6	279	1.6
Other	411	2.3	906	5.1

billion of PCs had been issued, with $41.2 billion outstanding. PCs issued under the Guarantor program may be especially attractive to pension funds. For the most part, the mortgages pooled under the Guarantor program are seasoned (i.e., over one year old), relatively low coupon mortgages. These characteristics diminish the likelihood of unexpected prepayment, providing a measure of call protection. Also, because Guarantor PCs are usually based on the mortgages originated by a single lender, funds that wish to purchase mortgages from a particular geographic area will find them suitable.

The Success of the Freddie Mac PC

Freddie Mac was chartered to develop and maintain a nationwide secondary market for residential conventional mortgages to overcome the tendency for mortgage credit to be isolated from the general capital market. The integration of these markets would result in the continuous availability of mortgage credit at market rates of interest, without regard to cyclical and regional influences. For example, thrift disintermediation or the mismatch between deposit flows and the demand for mortgage credit in a particular area would no longer thwart the home buyer's effort to obtain a mortgage. To achieve this objective, Freddie Mac developed the PC and has worked to increase the purchases of PCs by investors who traditionally did not invest in mortgages.

The first two columns of Table 1 show the distribution of standard program PC holdings as of August 1982. Nominees - firms acting on behalf of other investors - held more than 30 percent of the total value of PCs. To learn what kinds of investors use the nominee procedure, funds held over 18 percent, and were the second largest category of investor.

The effect of the linkage between mortgage and general capital markets has been especially evident in the most recent interest rate cycle. Despite the most severe thrift disintermediation ever experienced, mortgage credit has been continuously available. Moreover, the linkage has ensured that mortgage rates have closely followed rates in the general capital market. In February 1982, when conventional mortgage rates peaked for 1982, investors purchased PCs at a yield of 16.21 percent. By December, this had fallen to 12.37 percent. As a result, we were able to reduce the yield at which we purchased mortgages from 17.03 percent in February to 13.08 percent in December. Figure 2 shows how mortgage rates and yields on Freddie Mac's PCs have moved in tandem with yields in the capital market (represented by the U.S. Treasury 10 year bond rate) in 1982 and the first quarter of 1983. It is also a reminder of the persistent positive spread between PCs and some other secure, long-term investments.

The Freddie Mac GMC

Freddie Mac's second mortgage-backed security is the Guaranteed Mortgage Certificate, first offered in 1975. Like the PC, the GMC represents an undivided interest in a pool of mortgages which are purchased according to Freddie Mac's quality standards. What distinguishes these securities is that the schedule of payments for principal and interest has been arranged to avoid the problems associated with receiving (and reinvesting) monthly payments. Specifically, the GMC pays interest at the certificate semiannually and principal is

The GMC was designed specifically to appeal to institutional investors, by providing an instrument with more of the attributes of corporate bonds and fewer of the attributes of mortgages. In addition to the guaranteed schedule of principal repayment already mentioned, a very attractive feature is that Freddie Mac stands ready to repurchase the remaining outstanding balance at par after a specified number of years, usually 15.

The GMCs have been issued in registered certificate form with initial principal amounts of $100,000, $500,000, and $1,000,000. Security dealers provide a market for GMCs. No GMCs have been issued since 1979; however, at the end of 1982, $1.8 billion of GMCs were outstanding.

The Freddie Mac CMO

On May 31, 1983 Freddie Mac announced a proposed offering of the largest public issue of a mortgage related security in U.S. history. The $1 billion issue of CMOs - Collateralized Mortgage Obligations - will be a general obligation of Freddie Mac. CMOs will be issued in multiples of $25,000.

The unique feature of CMOs is the structure of the repayment of principal, designed to attract different types of investors, including pension funds. Most mortgage-backed securities pass through principal and interest to all investors on a pro rata basis. In contrast, the CMOs are divided into three classes, with short, intermediate, and long term characteristics. All classes receive semiannual payments of interest. Holders of the first class will receive all payments of principal (scheduled amortization and prepayments) on the same semiannual schedule, until they are fully received, they are passed on; if principal payments are below the minimum, Freddie Mac makes the additional payments. As a result of this schedule, the maximum average lives of the short, intermediate, and long classes are 3.2 years, 8.6 years, and 20.4 years, respectively. In addition, holders of the third class may require Freddie Mac to retire their obligations in 25 years. Freddie Mac may retire these obligations in 20 years, at its option.

By structuring the bond offering in this way, Freddie Mac was able to attract a variety of investors, with different preferences for the maturities of their assets. For example, savings and loan associations preferred the first class of the CMO. It represents a relatively short term asset to match their traditionally short term liabilities. Institutional investors, and pension funds in particular, often prefer long term investments to match their long term obligations. The second and third classes of the CMO offer a form of call protection, and are expected to be very attractive to these investors. In fact, preliminary figures indicate that pension funds purchased most of both second and third classes of the CMO. This may be the first instance in which pension funds invested so heavily in an instrument backed by current coupon mortgages. Insurance companies were most attracted to the second class of the CMO. The entire CMO offering was well received by investors; all three classes were sold out quickly.

Mortgage Purchase Programs

To purchase the mortgages underlying the securities, Freddie Mac offers daily commitments at a variety of delivery dates. This daily purchase system replaced a weekly auction in effect until April 1983. Lenders call in (or check Telerate) each day to obtain the posted, required net yield for Freddie Mac's (generally 30 years) are available for 0-30, 30-60, 61-91, and 91-120 day delivery periods. Freddie Mac also purchases multifamily whole loans and participations, prior approval multifamily loans, home improvement loans, and adjustable rate mortgages for immediate delivery.

Lenders obtain commitments by telephone to sell these loans to Freddie Mac and receive immediate confirmation. Delivery of the loans is mandatory in the period specified, and no commitment fee is charged. The corporation also offers optional delivery commitments for delivery of one-to-four family, fixed-rate mortgages during an eight month commitment term. These commitments are offered once each month, with a commitment fee of one percent of the contract amount. In addition, large purchases are considered on the basis of individual negotiation.

New Mortgage Programs at Freddie Mac: The Basis for New Securities

Numerous alternatives to the long-term, fixed-rate mortgage have emerged in recent years. A proliferation of mortgage instruments gives borrowers, lenders, and investors flexibility to meet their particular needs. However, this flexibility has some costs. In the context of the secondary mortgage market, it has a direct implication for security prices and transaction costs. Markets work best when the securities traded are available in large, homogeneous volumes. Thus, an attempt to develop 100 different mortgage-backed securities to match 100 different mortgage instruments could lead to lower trading volume in each security, higher yields, and, ultimately, higher mortgage rates for borrowers. It could also preclude hedging programs using options and futures markets.

For these reasons, Freddie Mac believes that it is best to focus on those new mortgage instruments that reflect a convergence of what is attractive to borrowers, lenders, and investors. This asset in this process of standardization by purchasing a limited number of mortgage types that have proven acceptable in the marketplace. Our intent is to provide home buyers and investors access to a range of maturities in the capital markets – short, intermediate, and long-term.

To provide short-term maturities, Freddie Mac began issuing commitments to purchase two new Adjustable Rate Mortgages (ARMs) on April 15, 1983. Both are 30 year instruments. One has rate adjustments every three years tied to the three year Treasury rate, and the other has five year adjustments tied to the five year Treasury rate. To provide intermediate term maturities, Freddie Mac now purchases 15 year mortgages.

For long-term maturities, the corporation will continue to offer 30 year conventional fixed-rate programs. Close attention will also be given to mortgage instruments that address the affordability needs of borrowers-in particular, first-time home buyers. Since the market potential for Graduated Payment Mortgages (GPMs) has been demonstrated by FHA experience, Freddie Mac is developing a program for conventional GPMs to be introduced by the end of 1983. In addition, we have implemented a program to purchase non-owner-occupied loans.

As noted previously, Freddie Mac prefers not to hold in portfolio the mortgages purchased, but to resell them in the form of mortgage-backed securities. Thus, Freddie Mac is actively considering securities based on the new mortgage purchase program. The new securities will help investors diversify and manage their risks better. For example, securities based on the three and five year ARMs will provide short-term assets to match short-term liabilities.

Conclusion

Freddie Mac's securities transform investment in residential mortgages in ways that overcome many of the tradisecurities are homogeneous and are issued in large volume; therefore, the transaction costs of trading them are reduced, and they are marketable. Further, there are no additional loan servicing costs. These functions are handled by Freddie Mac and our seller/servicers.

All this has been achieved while retaining the competitive yields mortgages have offered. For example, Salomon Brothers has compared the rate-of-return on mortgage pass-throughs with the rate on high-grade corporate bonds. From 1972 to 1982, the mortgage index (including Freddie Mac, Fannie Mae, and Ginnie Mae securities) provided a total return of 90.84 percent compared to 76.22 percent for the corporate bond index. Over the same period, the S&P 500 index returned 58.20 percent.

In the past, pension fund investment in mortgage-backed securities has been hampered by legal and regulatory constraints. Implementation of the Employee Retirement Income Security Act of 1974 (ERISA) imposed constraints on private pension funds concerning mortgage investments, particularly those in the form of MBSs. (State and local government retirement funds are regulated by State and local law.) Within the last two years, the Department of Labor has issued a number of amendments to its ERISA rules that have significantly reduced many barriers to investment in mortgage-backed securities and whole loans. Many of these changes were in response to recommendations of the President's Commission on Housing.

The conditions under which private pension funds may invest in mortgage-backed securities were broadened considerably. For example, private pension plans may now invest in mortgage pools containing second mortgages. For federally related MBSs, including Freddie Mac's, investment was made even easier. The Department of Labor clarified that the

Freddie Mac will continue to investigate ways to make our mortgage-backed securities even more attractive to institutional investors. For example, our new CMO with fast, intermediate, and slow-pay provisions significantly increases the investor's protection from unexpected and undesired prepayments. PCs backed by adjustable rate mortgages can address the problem of interest rate risk associated with long-term fixed-rate loans. Investment in other types of alternative mortgage instruments can even be used as hedges against inflation.

It is clear that the large quantity of pension fund assets represents a great potential source of funds for the mortgage market. Similarly, investment in our securities provides an excellent opportunity for pension funds to invest in safe, relatively high yielding assets.

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investment beyond the traditional limits of specialized financial institutions and the quasi-governmental agencies holding for portfolio. Securities can convert the cash flow from individual home mortgage loans into efficient and high quality bulk investments, suitable and attractive to a broad range of end investors.

You have already heard from three groups of key players in this "mortgage connection": 1) Realtors, who arrange sales of homes to people needing financing; 2) homebuilders, who construct and sell homes which will need financing; and 3) financial service companies represented by the mortgage bankers who process the loan transactions and service the individual mortgages. For some direct mortgage loan investors, these three groups can provide all the necessary services to produce a quality investment.

But traditional industry lines are blurring today as new investors - such as pension funds - enter the market. Often these investors want additional protection for their funds along with less administrative concern. This is where the creativity and flexibility of the private sector, including the mortgage insurance industry, become important.

Private mortgage insurance companies can insure mortgages against the homeowner's default to almost any conceivable degree. Overall, home mortgages perform extremely well as investments. However, the individual borrowers are subject to all the personal reasons for default, such as unemployment, credit abuse, marital difficulties, sickness and death, etc. Mortgage insurance protects the lender when a borrower defaults for these reasons. It reimburses the financial institutions for their costs and losses after they have pursued foreclosure.

But mortgage insurance only applies after the loan servicing institution has taken title to the home. It doesn't help the investor who is waiting to receive the delinquent mortgage payments. If the security issuer has commited to advance

protect investors against lowered yield in these cases by guaranteeing the performance of the servicer of the pool of loans. In the event of a mortgage default, it is the insurer who then pays the delinquent principal and interest to the investor.

A third type of coverage - special hazard insurance - protects the investor if there is any risk of loss from physical damage to the homes from causes that are not insurable under standard homeowners' policies. These special policies can cover unusual hazards such as floods, mudslides or earthquakes - hazards which could themselves lead to a mortgage default with major loss of property (collateral) value.

Because of our involvement in mortgage credit protection for financial institutions, the private mortgage insurance industry also has been heavily involved in developing these supplemental insurance coverages. In return, these added investment protections help expand mortgage sale opportunities for our traditional customers.

This is just one further development from one of the customer services offered by the private mortgage insurance industry - secondary market "matchmaking." Because private mortgage insurers are in constant contact with mortgage lenders across the country, we know when one institution has loans to sell or another has funds to invest. It is easy for us to bring buying and selling institutions together for the benefit of both parties and the housing industry.

This combination of our mortgage matchmaking services and our mortgage securities insurance policies led to a third stage of customer service: specialized subsidiaries called "conduits" through which we assemble mortgages directly for investors, or for other conduits, such as Residential Funding Corporation. The mortgage security conduits provide four general services: 1) assembling mortgage pools and arranging for local servicing; 2) providing administration, accounting, and

market participants - offer substantial advantages to investors. For instance, they can provide a greater diversity of mortgage product by region or by type. This spreads an investor's risk across the entire U.S. home market, when the alternative individual mortgage investments or smaller pools may be vulnerable individual, local market, or regional market problems. We can assemble the specific kinds of mortgages an investor wants - such as all fixed-rate with 30-year terms, or all in the State of Illinois. And, because of our experience in all aspects of mortgage lending, we can provide consistent mortgage quality.

MGIC's own conduit subsidiary - Mortgage Marketing Corporation (which we refer to as "Maggie Mae") - has done many investment packages for pension funds and other investment groups. We have assembled packages of first and of second mortgages; of mortgages on homes located in specific States, counties, or cities; of mortgages on homes built with all union labor; of 3-year, or 5-year, or price level adjustable rate mortgages; of 30-year maturities or shorter maturities.

In conclusion, private mortgage insurers' normal function of taking the credit risk for the lender can be expanded to meet newly perceived investors' concerns. With our secondary market know-how, specialized insurance coverages, and conduit services, we can provide new investors - such as pension funds - with all the investment cash flow without the risks or headaches of administering hundreds of mortgage loans.

been a major priority of the National Association of Home Builders for several years. Our association has established task forces and committees to study the problem and supported appropriate legislative and regulatory changes on both the State and federal level.

The driving force behind these efforts is the widespread perception within the industry that housing is not getting its fair share of available credit. The abolition of Reg. Q controls and the deregulation of financial institutions ended the system of specialized sources of funds. This new policy, combined with unprecedented deficit spending and interest rate volatility, has raised the cost of mortgage money to a level where buying a home is now beyond the means of millions of American families.

While pension fund assets have grown in recent years to the point where they now constitute the largest single capital pool in our economy, they have been largely absent from the trillion dollar plus residential mortgage market. By increasing pension investments in mortgages, we hope to increase the flow of funds into the secondary market, bring interest rates down to affordable levels, and reduce the severity of housing cycles which have a major influence on the overall performance of our national economy.

Substantial progress has been made in opening up State-regulated public employees' funds and the ERISA-regulated, multi-employer plans, especially those of the building and construction trade unions. According to the last annual survey of the portfolios of the 200 largest pension funds published by ***Pension and Investment Age,*** these major funds increased their investments in residential mortgages from one percent to four percent of total assets during the year ending in September, 1982. Union and

cent and 7.5 percent, respectively. Corporate funds were unchanged at one percent.

Of the top 200 funds, 66 had invested a total of $20.6 billion in mortgages. The largest of this group, the California Public Employees Retirement System, had almost $3 billion, or 22.1 percent of assets, in mortgages. Of the top 20 mortgage investors, 17 were public funds. The others were General Electric ($960 million), International Brotherhood of Electrical Workers ($666 million), and the Central States Teamsters Fund ($372 million).

Conventional mortgage-backed securities, pioneered by the Bank of America in 1977, have been the fastest-growing vehicle for opening up public sector pension funds for housing. These securities are typically issued by a financial institution or conduit subsidiary of a mortgage insurance company. A comprehensive private insurance package covering the individual mortgage, natural hazards to the collateral property, and a percentage loss in case of default on the mortgage pool has enabled these securities to obtain prime investment grade ratings from Standard and Poors. Brokerage houses and private mortgage insurers, such as MGIC, TYCOR, and VEREX, have taken the lead in structuring these transactions, which often take the form of private placements.

As you will learn in greater detail in the sessions later in the day, conventional mortgage-backed securities, like agency issues, offer safety of principal and competitive yields, but have a number of cash flow and prepayment characteristics that necessitate a yield premium. Active management of a mortgage pool, such as reinvestment of prepayments and carving up cash flows to provide varying maturities tailored to the particular needs of different investors, is not possible within the existing statutory framework of the grantor trust, the basic mechanism for pooling mortgages.

A number of approaches have been

and regulatory barriers to the increased use of conventional mortgage-backed securities, the Reagan Administration has developed a comprehensive deregulation program known collectively as TIM's. Several regulatory actions are already completed, notably granting eligibility of such securities for the SEC's simplified shelf registration procedures. Tax legislation to permit active pool management, cash flow division, and, hopefully, original issue discounts is undergoing final administration review. NAHB looks forward to introduction of legislation in the very near future and will be an active supporter provided that there are no unacceptable trade-offs.

In the meantime, the market is evolving other vehicles for overcoming the risks and uncertainties of existing pass-through securities. I would like to mention three examples that we consider especially significant.

The first is the cash flow bond, which is attracting considerable attention within our industry. The cash flow or builder-backed bond is a debt borrowing which is collateralized by the cash flow from a pool of mortgages, rather than by the general corporate assets of the issuer. To facilitate the rating process, GNMAs are often used as the collateral pool.

The mortgages are originated and held by a single purpose financing subsidiary which enters into a trust indenture with a third entity that issues the bond. As a result of this arrangement, the builder retains an interest in the mortgages and becomes eligible for installment sales tax treatment which, in turn, enables him to generate capital internally. An independent trustee receives the payment stream from the collateral, maintains an escrow account, and makes periodic payments to the bond holders.

Corporate builders, such as Pulte, U.S. Homes, Centex and Ryan, were the first to take advantage of the cash flow benefits of such bonds. The first multi-builder bond was issued by American Southwest Financial Corporation of Phoenix.

A major variant of the multi-builder program was recently announced by Merrill Lynch. Each month, builders from around the country will deliver mortgage bond packages to Merrill Lynch, who will aggregate them into standard offerings under a shelf-registration. The bonds are then to be sold to unit investment trusts that pay interest monthly. This product is currently very popular with retirees and other retail investors.

NAHB is actively promoting the multi-builder bond concept to its membership, and as more and more builders develop the capability and expertise to issue such securities, volume will rise and a liquid secondary market should be created.

Second, NAHB has joined with the National Association of Realtors to sponsor the Home Investors Fund, a no-load mutual fund for conventional mortgage-backed securities. The Fund is administered by the Vanguard Group, and the portfolio is managed by Wellington Management. The model portfolio, which consists of 20 percent each in GNMAs, FNMAs, and FHLMCs and approximately 35 percent in conventional securities, has a current gross yield of 12 percent. Operating expenses are running near the permissible legal limit of 1.5 percent to produce a net yield of about 10.5. As we move out of the start up period, the net should rise to somewhere around 11.

Initial marketing has been directed to the 700,000 plus members of NAHB and NAR. We are asking our members to place a portion of their retirement savings, especially their IRA and Keogh Accounts, in the fund in order to earn an attractive return, invest in the future of their industry, and demonstrate the long-term viability of conventional mortgage-backed securities as an investment. We want you pension fund managers to know that we are putting our money where our mouth is.

Between this initial announcement on May 2 and June 3, the fund attracted $2 million in funds. We have received a number of inquiries from the trustees of smaller, building-related corporate funds that were previously precluded from participating in the mortgage-backed securities market. Our fund offers professional management and small investment minimums and thus is appropriate for smaller institutional investors, as well as for individuals.

Third, a major innovation is Freddie Mac's Collateralized Mortgage Obligation (CMO), sold earlier this week. The initial issue breaks a $1 billion mortgage pool into three classes of bonds: short, intermediate, and long. The tiered retirement structure, a goal of TIMs, is designed to take advantage of lower short term rates and to more precisely define maturities. All investors receive interest semiannually, but all prepayments are applied to the fast-pay portion, until that segment is retired. The intermediates are then retired and finally, the long portion. The average weighted yield to investors on the total CMO was 11⅝%, a considerable savings when compared to current regular PC sales with a bond equivalent yield of about 12.50%. This spread is one measure of the impact TIM's could have on affordability; it also illustrates the potential return to you of taking the trouble to master the awkward, but very profitable, world of pass-through securities.

All of these vehicles accomplish some of the goals of TIM's. The certainty of payment on a fixed schedule provided by cash flow bonds and Freddie Mac's collateralized mortgage obligations mean these securities can be compared directly

Fund provides liquidity and call protection. But these partial benefits are achieved through complex layering of transactions and costly regulatory compliance. TIMs is needed to simplify the process and bring down the costs.

Now I would like to return to the question of why corporate funds have not been a major participant in the mortgage markets. Unlike some of the other participants in this conference, NAHB does not feel that the Department of Labor has done nearly enough to remove regulatory barriers to increased investment in mortgages. The Department has had great difficulty understanding the nature of the secondary mortgage market, and has not accepted the fact that the series of contractual and fiduciary relationships created by appraising a home, underwriting a loan, insuring a mortgage, and rating a mortgage pool make mortgage investment a highly regulated and safe business. As a result, the Department's interpretations of ERISA place extra burdens on fund managers and trustees investing in mortgages that do not apply to other types of investments.

NAHB first applied for a mortgage class exemption from the prohibited transactions provisions of ERISA in June, 1980. A badly flawed exemption was finally issued in May, 1982.

The underlying problem here is that the Labor Department is developing regulations which substitute its judgment of what constitutes a good investment for the discretion more properly belonging to the fund trustees and managers under the general "prudent man" standard. For example, pension funds have poured billions of dollars into commercial properties, but are not automatically able to purchase FHA-insured mortgages on apartment projects. Those of you who are the proud owners of empty office buildings might think about that one.

Legislation was introduced in the last Congress by Representatives Gephardt and Wyden to correct the problems with Prohibited Transactions Exemption 82-87. The Bill, which has been reintroduced this year as HR 1418, includes both government supported and conventional multi-family mortgages within the definition of a recognized mortgage loan eligible to be purchased. The existing restriction of eligibility to loans which can be purchased by GNMA, FNMA, or FHLMC precludes funds from acquiring so called non-conforming, conventional loans, which resembled eligible mortgages except for the fact that they exceed the $108,300 statutory limit for conforming loans. This limit has a severe impact in California and other high cost housing markets and effectively precludes pension funds from participating in the most lucrative part of the market. While the Labor Department has talked repeatedly of amending the class exemption on these points, we have not seen any formal action.

A revised version of the current legislative proposal includes an exemption for conventional mortgage-backed securities given an investment grade by a national rating service. Standard and Poors has rated mortgage securities for some time and Moody's is currently establishing a new division to rate both pass-through and cash flow mortgage securities. Put another way, if you can meet your fiduciary responsibility by relying on a corporate bond rating, you should also be able to rely on a similar rating for a mortgage-backed security.

Last year, considerable criticism appeared in the pension press to the effect that NAHB wanted to do away with any role for an independent fiduciary. The revised Gephardt-Wyden bill, which we support, retains this requirement for mortgages which are not eligible for purchase by a federally-related agency or included in a rated mortgage-backed security.

In summary, we have seen a rapid evolution of mortgage-backed securities since the first GNMA was issued in 1970. The agency market has become well established, and attention is increasingly focused on the innovations in the conventional market. Mortgage-backed securities are emerging as a major investment alternative, on a par with corporate stock or bonds or government securities. Wall Street Houses are scrambling for scarce talent to staff their new mortgage-backed securities departments.

The ERISA-mandated directive to diversify plan portfolios in order to minimize risk means you have an obligation to the participants of the plans you manage to compare mortgage-backed securities with more traditional stocks and bonds. I hope you will remember some of these thoughts the next time you go to buy a house, or when your son or daughter comes to borrow $10,000 as a downpayment for his or her first home. With regulatory changes such as TIM's and passage of the Gephardt Bill, we can make housing more competitive in the larger capital markets and hasten the time when affordable interest rates return.

mortgage capital has long been a major concern of the National Association of Realtors. The Association's President, Harley W. Snyder, said when he took office in 1982, "The highest priorities of my administration will be to develop new sources of funds for homeowners and to increase the affordability of those funds."

The National Association worked hard during 1982 and 1983 to bring new legislation and deregulatory initiatives into place that could help the mortgage finance picture. ERISA changes, expanded powers for Fannie Mae and Freddie Mac, assisting the development of TIM's, joint programs and seminars with HUD, and the Secondary Mortgage Market Enhancement Act of 1983 have been just a few of the many efforts of the Association to close the mortgage credit gap. Most likely of greatest long-range importance, though, will be our continued efforts to reduce the size of the Federal deficit, and consequently, to keep interest rates in check.

Shifting methods, techniques and sources of mortgage financing that resulted when interest rates began their climb in the '70s, also severely stretched the comprehension and imagination of realtors and their clients when attempting to structure a home sale. The alphabet soup of mortgages, changing directions of financial institutions and the high cost of mortgage credit all caused Association President Snyder to reassess the role of the National Association in the mortgage market. A more direct effort was needed beyond the Association's traditional strengths.

The emergence in 1981 of the secondary market as the major factor in providing housing capital forged a clearer direction for future National Association of Realtors efforts. In particular, the growth of the mortgage-backed security as a vehicle for tapping national and Association has been long active in the education of pension funds and other investors to the advantages of mortgage securities and investment, a more direct role was needed.

The quality, the value, the yields, and the high degree of liquidity are all touted to encourage broader investment in this newly important security. However, an investor resource virtually untapped and largely ignored, except in the government-guaranteed market, surprisingly, was the general public. Analogous to pre-money market fund days, the individual investor rarely ventured into the institutional domain of such large and sophisticated securities. The reasons were partly the youth of the securities, partly the sophistication of the average investor and definitely, practical.

Practical considerations include the large denominations of mortgage-backed securities - typically $25,000 to $150,000. Flexibility of investment is less than desirable because of liquidity concerns, which are more important to the small investor. Other problems that the individual had in common with the institution are the cumbersome monthly interest payments, the unexpected return of principal and the complex purchase analysis.

The Home Investors Fund

To address these problems and accelerate the growth of mortgage-backed securities to smaller investors and pension funds, the National Association of Realtors created the Home Investors Fund. The fund is actually a no-load mutual fund that invests its assets into mortgage-backed securities. Investors who purchase shares can enjoy some of the highest yields available in the fixed income market while providing funds to the vital secondary mortgage market. These two benefits should prove particularly attractive to real estate professionals.

Professional financial firms actually

functions. Wellington Management Company makes the investment decisions for the assets to the Fund. State Street Bank of Boston, the largest custodian bank in the country, holds all securities and cash. It is a unique combination of professionals structured to provide optimal investment return.

Ken Harney, a Washington Post columnist, called the Fund "one of the most ambitious programs of this decade." Indeed, it is unique as the first fund that includes the higher yields of conventional mortgage-backed securities as well as government guaranteed issues.

Shares in a mutual fund that invests in mortgage-backed securities have several advantages over direct investment in such securities, said E.F. Bowditch, Jrs., Senior Vice President of the Vanguard Group, the Home Investors Fund's administrator. He noted that Fund investors avoid the administrative burdens of collecting monthly interest and principal payments while benefiting from asset diversification and reinvestment of loan prepayments.

The Home Investors Fund reinvests the monthly dividends and the early principal payments of the mortgages to the benefit of the investors. It also provides diversification among a "market basket" of these securities and represents mortgages from all parts of the country: an important feature.

Investors can purchase shares of the Home Investors Fund for an initial minimum investment of $2,000 and can buy additional shares in $100 increments. The minimum investment to open an Individual Retirement Account (IRA) is $500; other Keogh and retirement plans are available The Fund is particularly suitable for these plans.

The Home Investors Fund is a "no-load" fund that charges no front-end fees or commissions for share purchases or redemptions. All shareholders receive quarterly statements on their individual accounts and also semi-annual shareholder reports with financial statements.

As an important feature, the Fund solves the problems of monthly interest payments and unexpected principal prepayments.

The Fund compounds these interest payments for a higher yield and investors receive quarterly dividends based on the income from the payments on the loans that back the securities. Any capital gains the Fund makes in selling its assets will be distributed annually or, at the investor's option, will be used to purchase additional Fund shares.

Investments in the Home Investors Fund are liquid, because the shares can be redeemed at any time by written request to the Fund. The value of a share changes daily according to the value of the Fund's investments.

National Association of Realtors President Harley Snyder, who pioneered the development of the Fund, said the Fund represents the first opportunity for all types of real estate professionals, homeowners and pension funds to get together and lead the way toward an abundant supply of mortgage credit. Additionally, it may be an opportunity for otherwise hesitant large institutions to "test the water" of mortgage investment without a far-reaching commitment. The Fund has been in operation since June 1983 and has received tremendous support from both the real estate industry and the general public. The Fund's yield has generally held steady since that time and reflected the historically outstanding yields of mortgage-backed securities.

The secondary market has become an indispensible financing source to the realtor, but provides significant benefits to investors, as well. If it is to continue to meet our Nation's mortgage funding requirements, it will need active support from the real estate industry. The 575,000 members of the National Association of Realtors hope to lead the way toward a greater supply of mortgage funds by setting an example that all types of investors can monitor or participate in as shareholders. It is just one more boost to ensure that mortgage-backed securities maintain their momentum as the fastest growing segment of the fixed-income market.

I appreciate the opportunity to meet with you and share some thoughts on the investment potential of residential mortgages for pension funds. The reason why mortgage bankers and other loan originators are so anxious to tap pension funds stems from the tremendous transformation process that has occurred in recent years in the way mortgage markets operate, and from the growing need to find new investment outlets to satisfy the hundreds of billions of dollars of mortgage originations projected over the rest of this decade ($150-$200 billion annually being a reasonable estimate).

My assigned topic is the mortgage banker's role in the secondary markets, but it goes beyond that - to the great increase in the role of mortgage banking in recent years. In the mid-70's, for example, sales of residential mortgages hovered fairly constantly at 30 percent of total loan originations. However, loan sales as a percentage of originations climbed dramatically in recent years - to 49 percent in 1980, for example, and then to approximately 60 percent in 1982, according to estimates that eliminate loan "swaps" from the sales numbers. In effect, the residential mortgage seems to have become a "hot potato" that no one wants to hold, once it is originated - and that is why lenders are looking to pension funds as a major outlet - but not the only one - for new loan production.

Pension funds are a logical outlet, in the eyes of mortgage bankers and other lenders, because their liability structures are longer-term in nature, and more closely match mortgage pool maturities than the liability structures of most other investors. Thrift institutions historically played the permanent investor role now being sought for pension funds, because until the last decade or so, their liabilities were long-term and somewhat cushioned by Reg. Q from volatile savings in costs. Deregulation has forever altered the role of thrifts, however, and until the new alter- problems, however, so for them, the high yields and increasing marketability of mortgages should make them attractive as investments.

It is well recognized that a massive education and exposure campaign is needed to illustrate the benefits of mortgage investments for pension funds, and Secretary Pierce, Dr. June Koch, and the HUD staff deserve a great deal of credit for leading this process. But the challenge goes beyond education, of course. It involves the development of conventional mortgage-backed securities, with even higher yields. And it requires the development of pricing schemes that provide effective call protection for investors, so that the higher MBS yields are not here today but gone tomorrow.

In my judgment, however, there is no greater hotbed of innovation and change in the investment industry than the residential mortgage market. Mortgage bankers are leading the process of mortgage market innovation. FNMA, Freddie Mac, and GNMA are also in the forefront of change. If you, as investment managers, need the ultimate in credit quality, government guarantees or a variety of private guarantees can provide triple-A ratings on mortgage-backed securities.

If especially high yields are required, pools of second mortgages, loans on nonowner occupied houses, and project mortgages can generate yields in excess of more standard mortgage instruments. Some day, pools backed by a variety of commercial properties - mixed-use developments or other income-producing real estate - will also be available. Finally, call protection can be achieved either through low coupon loans or creative instruments such as GNMA II and Freddie Mac's Collateralized Mortgage Obligations.

For the future, I expect that the primary mortgage offered by lenders to consumers eventually may be priced according to the borrower's willingness to pay for the one example that I'm aware of that illustrates what one pension fund accomplished by working closely with mortgage bankers and other lenders. Perhaps you are already familiar with this example, so I will be brief. A group of lenders working with the Utah State Retirement System developed what was called the Adjustable Balance Mortgage program, or ABM. The ABM, which was an inflation-adjusted mortgage, met the Retirement System's objectives of an inflation hedge and portfolio diversification at a high yield.

The ABM is tied to the Consumer Price Index and guarantees a constant 4 percent real rate of return. By way of comparison, the spread between AA utilities and the CPI exceeded 400 basis points only three times between 1956 and 1981, and then only for brief periods of time. In fact, the average spread over this 25-year period was 218 basis points, so the ABM offered an attractive investment alternative for the Utah Retirement fund.

In closing, it is the long-term liability structure of pension funds that makes mortgages such a logical investment choice. I would strongly encourage you to meet with mortgage bankers - they know who you are even if you don't know who they are - to try to tailor a mortgage investment program to the specific needs that you represent. Keep in mind that the mortgage banking industry accounts for approximately 30 percent of all single-family loan originations, second only to the savings and loan industry. (Last January, in fact, mortgage banker loan volume exceeded that of the S&L industry.)

As more and more lenders get into the mortgage banking business, selling their loan production into the secondary markets, one fact becomes increasingly clear. We cannot all be sellers of loans. Someone must be a buyer - and we ar anxious to work with you and all pensic funds to tailor loan packages that are more attractive than any other investm alternative that you currently have. It

Because a purchaser of a pass-through owns a share of the cash flow from the mortgages in the pass-through pool, the nature of those mortgages is of paramount importance in determining the value of the security. In particular, the following factors should be examined when analyzing the components of a pool:

1. Types of mortgages or AMIs.
2. Distribution of mortgage rates versus pass-through coupon.
3. Distribution of mortgage maturities.
4. Number and size of mortgages.
5. Geographic distribution of mortgages
6. Creditworthiness of mortgages.

The first three factors directly affect the amount of monthly cash flow from a pool and the breakdown between principal and interest. The last three factors contribute to the regularity, predictability, and risk of that cash flow. A key word in the above factors is "distribution." It is not enough to know only the level (or average level) of the mortgage rates, maturities, etc.; one must also know the range and diversity of levels on the individual mortgages. For example, there may be two pools with average mortgage rates of 11 percent. In one pool, this could mean that all mortgages have 11 percent rates, although in the other, there could be a range of rates from 10 percent to 14 percent. The actual pattern affects the amount of cash flow as well as its predictability.

Type of mortgage is an important determinant of cash flow, because different types of mortgages have different amortization patterns. A pass-through pool consisting of GPMs, for example, would have negative principal amortization in its early years. In general, the more progressive the AMIs in a pool (meaning the more they lower the initial payments from that on a traditional mortgage), the less principal gets rate on the security at all times. The mortgage rates usually vary from the coupon rate, with any excess of mortgage rate above coupon rate being kept by the mortgage service and/or the security issuer. Mortgage interest rates are important to the investor because they affect the principal amortization schedule. Higher mortgage rates mean slower amortization of the loan (less principal in the early years, more in the later years). This is true, regardless of the mortgage type or maturity. Servicers generally like high mortgage rates and/or low coupon rates so as to maximize the difference, which is their servicing fee. Investors, on the other hand, tend to want higner coupon rates (more interest paid to them) and lower mortgage rates (faster amortization).

The distribution of mortgage maturities is important in the same regard as the mortgage types and interest rates. The longer the maturity, the more time over which the principal is amortized, and therefore, the less amortization is passed through in the early years of the security. The maturity date of a pass-through is generally stated to be the date on which the last component mortgage is fully repaid. The investor must not assume that all of the mortgages in the pool mature on the same date. Each issuer has its own limitations as to the allowable distribution of mortgage maturities in a pool - typically the maturities must all lie in a one-year time span. Nonetheless, the average maturity of the component mortgages, and therefore the average maturity of the pool, is almost always shorter than the stated maturity of the pool. Any difference that does exist becomes increasingly important over time.

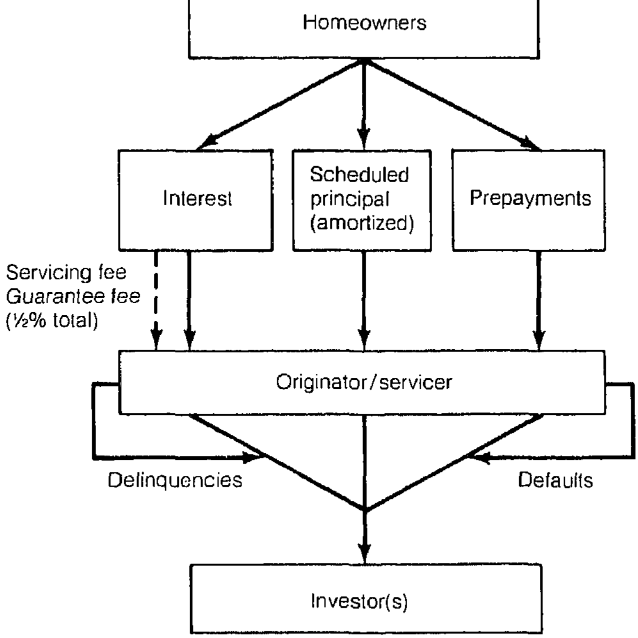
The greater the number of mortgages in a pool, the more regular and predictable its cash flow. If it were not for prepayments, predicting pass-through payments would be easy as long as one rarely disclose the exact number of mortgages in a pool, it can be estimated by dividing the size of the pool by the average size of the mortgages. The size of the mortgages is often indicated by issuers, and in many cases, there is a maximum size that allows one to establish a minimum number of mortgages for the pool.

Geographic distribution is important because it affects the likelihood and predictability of prepayments. Certain areas of the country are popular (and others unpopular) among pass-through investors, so pools that are highly concentrated in a particular region will be evaluated accordingly. From the standpoint of predictability, however, the more geographical diversification, the better. This is because certain events that precipitate prepayments and defaults, such as natural diasters or factory closings, are local in nature and would have a greater impact on regionalized pools than on diversified pools.

Finally, there is the matter of creditworthiness. The creditworthiness of a pool can be greater than that of the mortgages because of pool insurance and payment guarantees that go beyond mortgage insurance alone. (These will be explained more fully later.) Still, the strength of the mortgages determines in large part the strength of the pool. In the absence of payment guarantees, the stronger the individual mortgage's credit, the more valuable the security. However, payment guarantees can alter this perspective. For example, if an issuer agrees to pays off in full any loan that defaults, the investor may begin to hope for defaults and prize pools consisting of low-quality mortgages.

By far the biggest problem in evaluating the underlying mortgages of a pass-through pool is obtaining information on them. The information available and the ease with which it can be obtained varies from issuer to issuer. Suffice it to somewhat complicated topic. It involves closely examining who pays what to whom and when, as well as who is entitled to which part of the payments. Rather than discuss this subject in general, we shall choose an actual type of pass-through as a model. The most obvious choice for the model is the GNMA (Government National Mortgage Association) arrangement because GNMAs have consistently constituted more than 75 percent of all outstanding pass-throughs. Information on other pass-throughs is detailed in Appendix A at the end of this chapter.

The flow of money in a GNMA pass-through security is fairly simple and is illustrated in Exhibit 1. Each pool has one originator and servicer who, each month collects principal and interest payments from the mortgagors. The originator/servicer sends checks to investors and reports payments and principal balances to GNMA. The servicer keeps .5 percent (50 basis points) of the outstanding principal balance each month as a gross servicing fee (this comes out of the interest passed through to the investor). From the .5 percent fee, the servicer remits .06 percent (6 basis points) to GNMA as a guarantee fee, thereby leaving .44 percent (44 basis points) as the net servicing fee.



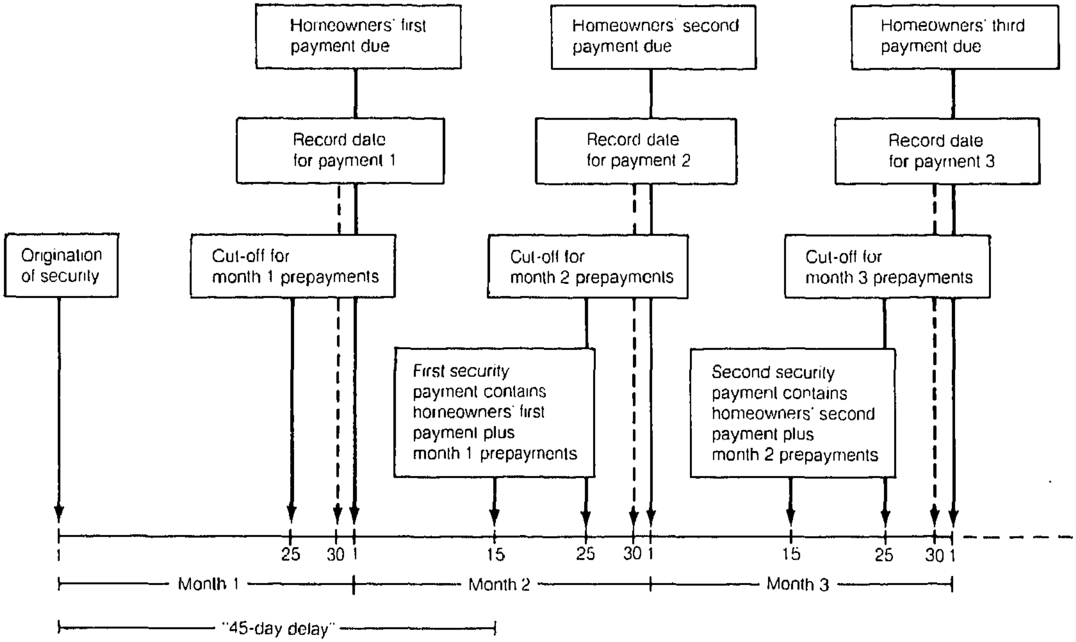
The timing of payments is shown in Exhibit 2. Mortgage payments are due from the homeowners on the 1st of each month and are sent to investors on the 15th of the month. Prepayments might be made by homeowners at any time during the month, so a cutoff date must be established. For GNMAs, any prepayments received by the servicer up to the 25th day of a month will be passed through on the 15th of the following month. Because GNMAs are securities that are routinely bought and sold in the secondary market, the servicer must have some way of determining whom to pay. The method used is to remit a check each month to the owner of the record date because payments are received by holders of record on that date.

Notice that an investor who buys a GNMA on the first of a month (or who buys a new GNMA) does not receive the first payment until the 15th day of the following month. How many days does such an investor have to wait before receiving the payment? Let us assume that the month is 30 days long; this is the standard assumption made by Wall Street dealers with regard to all corporate, agency, and municipal securities, no matter how many days are really in the month. The number of days that elapse from the 1st of one month to the 15th of the next month is, therefore, 44. Because pass-throughs are a monthly payment security, the investor would expect to receive a payment after 30 days, and every 30 days thereafter. Clearly, then, the first payment on a GNMA is delayed by 14 additional days. The only problem is that many a GNMA trader, salesperson, or investor will tell only 44 days. The real shame is that this misconception was subsequently inherited by all other types of pass-throughs. As a result, the analyst must always substract 31 from the stated payment delay in order to obtain the rea delay or penalty. For example, the pass-throughs issued by the Federal Home Loan Mortgage Corporation (FHLMC, or "Freddie Mac") are said to have a 75-day delay in receipt of the initial payment. For analytical purposes (computing yields, etc.) this equates to a penalty of 75 - 31 = 44 days.

Guarantees

To date, there are four types of guar tees that have been placed on pass through securities in order to elevat their creditworthiness from that of w loans. These are:

1. Guarantees on interest payments.
2. Guarantees on principal payments.
3. Mortgage guarantee insurance


Homeowners' first payment due
Homeowners' second payment due
Homeowners' third payment due
Record date for payment 1
Record date for payment 2
Record date for payment 3
Origination of security
Cut-off for month 1 prepayments
Cut-off for month 2 prepayments
Cut-off for month 3 prepayments
First security payment contains homeowners' first payment plus month 1 prepayments
Second security payment contains homeowners' second payment plus month 2 prepayments
1
25
30
1
15
25
30
1
15
25
30
1
Month 1
Month 2
Month 3
"45-day delay"

Not all types of guarantees apply to each type of pass-through, and investors should determine the exact nature of any guarantees before purchasing these securities.

A guarantee on interest payments is a promise that investors will receive interest *earned on the outstanding principal* balance of the security on a timely basis. This means that investors are assured of collecting interest due whether or not it was actually collected by the servicer (i.e., whether or not the homeowner actually paid it). It also means that if principal payments fall in arrears, the investor is guaranteed to *receive interest due on the entire unpaid* principal balance, despite the fact that the mortgage balance would have been less if the principal payments were up to date. Pass-throughs that have guarantees of timely interest payments are said to be modified pass-throughs.

Some pass-throughs guarantee the timely payment of principal as well as

Certain private issuers of pass-throughs are effectively prevented from offering modified or fully modified securities because of a legal technicality: Although the issuance of a pass-through normally constitutes a sale of assets (which is what is desired), the *existence* of any guarantees as to principal or interest keeps the mortgages on the issuer's balance sheet as a contingent liability. In order to avoid this problem, private pass-through issuers have purchased one or more types of insurance to compensate the investor for the absence of direct guarantees.

Mortgage guarantee insurance, or *pool insurance*, is a policy that insures against defaults on the part of the homeowners. It is limited in scope, typically to 5 percent of the initial principal amount of the mortgage pool. Hazard insurance, on the other hand, covers certain physical risks, such as earthquakes and floods, which may not be covered by the insurance policies of the

should be remembered that a guarantee is only as strong as the guarantor. GNMA securities have by far the strongest guarantee, since they are fully modified and guaranteed by the U.S. Government. (At present, GNMAs are the only government-guaranteed pass-throughs.) The types of guarantees for other pass-throughs are detailed in Appendix A at the end of this chapter.

Prepayments

The analysis of pass-through securities would be fairly straightforward if it were not for the existence of prepayments. If no prepayments took place, the cash flow generated by a pass-through security would be the aggregate cash flow from all of the underlying mortgages less *the servicing and guarantee fees* kept by the originator and/or issuer. Although there might be some degree of uncertainty as to the exact composition of a pool in terms of mortgage interest security.

A prepayment occurs whenever a monthly mortgage payment is made in excess of the amount actually due. The amount of the excess payment is applied directly to the outstanding principal balance, and therefore serves to extinguish the loan earlier than its original maturity date. Usually a prepayment means that an entire mortgage loan was repaid. It is rare that a property owner decides to prepay only a portion of an outstanding loan, especially in a climate of rising interest rates and/or tight money. There are several possible causes for prepayments, among which are the following:

1. *Sale of the property* - the original property owner uses part of the proceeds from the sale to repay the mortgage loan.
2. *Refinancing* - if interest rates fall, the property owner may obtain a new mortgage loan at a more favorable rate and use the proceeds to retire the original mortgage.
3. *Disaster* - in the event the property is destroyed by fire, flood, or other disaster, insurance proceeds may be used to repay the mortgage. A homeowner may die, and the survivors may repay the mortgage from life insurance proceeds.

In addition to the above, investors of fully modified or insured pass-throughs will receive prepayments in the event of a default on one or more of the underlying mortgages. In general, an investor is unaware of whether any principal prepayments were caused by mortgage retirements or defaults. On average, though, defaults have accounted for a relatively small percentage of total pass-through prepayments.

Some mortgage lenders discourage property owners from prepaying their loans by imposing a prepayment penalty. This often takes the form of an additional six months of interest charges and may decline to zero over some

mortgage servicer or issuer. This question does not arise with GNMA securities, however, since neither the FHA-insured nor the VA-guaranteed mortgages comprising GNMAs permit prepayment penalties to be charged.

It is tempting to assume that a prepayment would always be desirable from the point of view of the security holder. However, this is not the case. The security holder should compare the investment opportunities available with any prepaid dollars to the coupon rate being earned by the dollars that are not prepaid. When the coupon is higher, prepayments are undesirable. An equivalent analysis is the comparison of the market value of the security to par. If the security is valued at a premium, then each dollar of principal value is worth more in security form than as cash (when it is prepaid). One form of prepayment that is almost always detrimental to the investor is refinancing. The property owner will generally not refinance unless interest rates are low enough to make it worthwhile; however, this is precisely the case in which the prevailing interest rate is lower than the coupon rate (i.e., the security is selling at a premium), and therefore, the prepayment is undesirable.

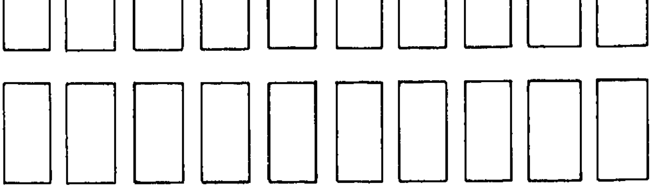
One final point concerning the fine print on pass-through prepayments regards the interest on prepaid principal. Suppose a homeowner prepays the mortgage on the second day of the month. The mortgage lender ceases to earn interest on the prepaid amount but does not pass through this payment until the end of the month. Depending on the particular security, the investor may or may not earn a full month's interest on the prepaid amount. This problem is less significant for larger pools and/or pools with fewer prepayments, since the percentage of mortgages experiencing this problem will tend to be lower.

Measuring Prepayments

tics of the mortgages making up the pool. Prepayments, however, are inherently unpredictable, since they depend on the actions of individual property owners. Nonetheless, if large numbers of mortgages are aggregated, the prepayments that do occur tend to become spread out over time. Although a prepayment tends to be an all-or-none event at the individual mortgage level, it may represent the return of only a small percentage of total principal at the pool level. Thus, a mortgage pool may have prepayment activity ongoing over its entire period to maturity. The level of this prepayment activity is referred to as the *prepayment experience rate* of the pool, and it may be measured in several different ways. In any event, the prepayment experience rate, as measured by any standard, need not be constant over time. In fact, prepayment experience tends to fluctuate in conjunction with various economic indicators.

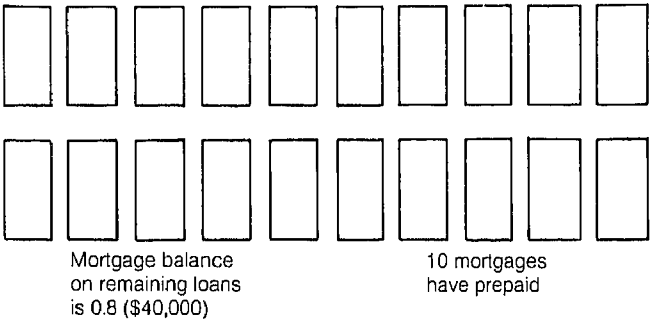
Before explaining how prepayments are measured, some terminology is required. We already know that *mortgage balance* is the ratio of the remaining principal amount on an individual mortgage loan to the original loan amount. This ratio generally runs from 0 to 1, although certain AMIs (e.g., GPMs) may permit it to exceed 1. In an analogous fashion, we define the *pool factor* of a pass-through security to be the ratio of its outstanding principal balance to the original principal amount.

If a mortgage pool had no prepayments, then, at any point in time, its pool factor would be the same as the mortgage balance on the underlying mortgages. (If the component mortgages were of different types, interest rates, or origination dates, then the pool factor would represent a weighted average of the individual mortgage balances.) On the other hand, if prepayments did occur, the pool factor would be less than the mortgage balance. In effect, the mortgage balance measures the



20 mortgages at $50,000 equals $1,000,000

After 10 years



10 mortgages at .8 (50,000) is $400,000

$$\text{Pool factor} = \frac{\text{Remaining balance}}{\text{Original balance}} = \frac{400{,}000}{1{,}000{,}000} = 0.4$$

$1 million. At the end of 10 years, half of the loans are assumed to have prepaid, and the balance on each remaining loan is $40,000. Thus, the pool contains $40,000 principal at that time. The mortgage balance is 0.4 million/0.5 million, or 0.8, whereas the pool factor is 0.4 million/1 million, or 0.4. A measurement for prepayments now suggests itself; prepayment experience may be expressed as the amount by which the pool factor has declined relative to the mortgage balance. In other words, it is the amount by which the pool factor is different from what its value would have been if no prepayments had occurred. We define the overall prepayment rate for the 10-year period as the ratio of the pool factor to the mortgage balance: 0.4/0.8 equals 0.5, or 50 percent. This, of course, merely reiterates what we already knew - that half of the loans had prepaid. In practice, however, we are neither given the number of loans composing a pool nor the sizes of the individual loans, so that the prepayment rate must be imputed by dividing the pool factor (which is always known) by the mortgage balance (which can be computed based on the known or assumed characteristics of the underlying mortgages).

A subtle problem arises with mortgage pools containing a mixture of mortgage types, interest rates, and/or maturity dates. In order to perform the calculation described above, it is necessary to know the average mortgage balance on the loans in the pool. If the pool originally contained a mixed bag of loans, this average mortgage balance would vary depending on exactly which loans survived (i.e., did not prepay). For example, if a pool originally contained half 8 percent loans and half 10 percent loans, the average mortgage balance would depend on how much of each type prepaid. Unfortunately, this information may not be available. For better or worse, it is commonplace to assume that all of the loans in a pool have common character-

viewed as if it were entirely composed of 9 percent loans). These characteristics would be viewed as immutable until such time as information to the contrary becomes available. This assumption causes the calculation of prepayment rates to be somewhat imprecise, although, with long periods to maturity, it is rarely a problem.

SMM Experience

In examining the prepayment rate of a pool, it is not enough to know simply the number of mortgages that prepaid. One must also consider the amount of time involved. In the previous example, we could say that, since 50 percent of the mortgages terminated over a 10-year period, the average prepayment rate

Monthly Mortality, or SMM, prepayment rate of the pool. SMM differs from the above calculation in two respects:

1. The SMM rate reflects average prepayments per month, rather than p year.
2. SMM expresses the amount of mortgages that prepay relative to the amount of mortgages outstanding, n the original amount.

The second point is worth elaboratin If a mortgage pool had 75 percent of its mortgages prepay after only two months, it would be tempting to compu the SMM rate as 37.5 percent. In fact, though, the SMM rate would be 50 percent. After one month at 50 percent SMM, half the loans would prepay. In th experience rates for mortgage pools are 1 percent or less.

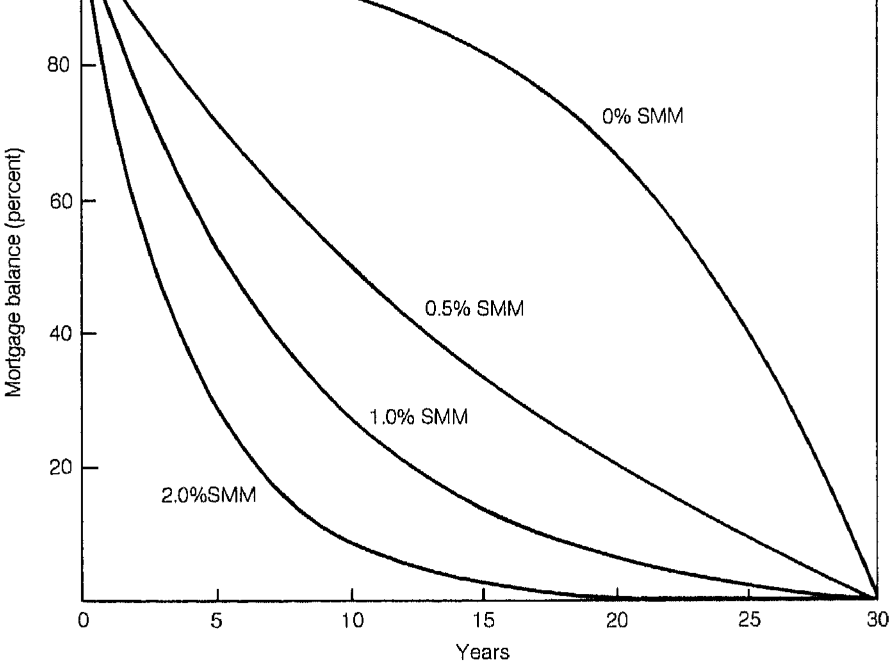
Notice that the SMM experience for a pool is an average prepayment rate and does not imply that prepayments take place every month. In fact, pools containing relatively few mortgages will rarely have prepayments, and when prepayments do occur, they will tend to be for a relatively large percentage of the pool. Investors should be careful to notice any difference between the *cumulative* prepayment rate (the average rate of prepayments since the pool's inception) and the *interim* experience rates (e.g., the prepayments during the past six months, prepayments for each calendar quarter, etc.).

Exhibit 4 graphs the pool factor for a pass-through security containing 30-year, 10 percent mortgages at various SMM prepayment rates. The higher the prepayment rate, the more quickly the pool factor declines. Notice that the line labeled 0 percent SMM represents no prepayments (i.e., it is the schedule for the mortgage balance.)

SMM is an appealing way to measure prepayments because of its simplicity, but it is not in any way a predictive model. In other words, there is no basis (yet) for supposing that the historical prepayment rate should be continued into the future. Certain studies of mortgage termination behavior have resulted in the discovery of prepayment patterns. These patterns can be built into a prepayment model, and individual pools can be evaluated *relative* to this norm. The best known prepayment model and the measurement employed by most institutional investors is known as FHA-experience.

FHA Experience

The Federal Housing Administration (FHA) was established in 1934 to encourage the improvement of housing standards and to provide a system at



the national level for mortgage insurance as an aid to homebuilders, buyers, and mortgage lenders. In the process of performing these tasks, FHA has accumulated a wealth of historical information on the mortgages it insures, including data on mortgage terminations. Each year, the Actuarial Division of the Department of Housing and Urban Development (HUD) performs a statistical analysis of the FHA data going back to 1957. The results of this analysis have become the basis for the FHA-experience model.

Technically, there are several varieties of FHA experience corresponding to mortgages insured under different sections of the National Housing Act. Each section applies to loans for different property types and calls for various terms to maturity, and so on. In fact, the full HUD analysis breaks down prepayments by mortgage type and by State. The most commonly insured FHA loan, though, is the Section 203 single-family

tion, it generally means the most recent HUD study on Section 203 loans for the United States as a whole.

FHA experience takes the form of a decimal-balance table, which indicates, for each year in the life of a mortgage, what the probability is that it will survive (i.e., not prepay or default) to that point. For example, consider the figures from Exhibit 5, which shows the standard FHA-experience balances used during each of the years 1974 through 1981. According to the 1981 data, a Section 203 mortgage had a 98.88 percent chance of surviving until the end of 1 year, a 57.49 percent chance of lasting 10 years, and so on. Notice that only 7.9 percent of all such mortgages are expected to reach their 30-year maturity. From the decimal balance table, one can compute the percentage of mortgages expected to terminate in any given year. By spreading these terminations out over the entire year, one can one to differentiate between terminations due to prepayments and terminations due to defaults. For the purposes of pass-through analysis, though, these can be lumped together and are usually referred to simply as "prepayments.")

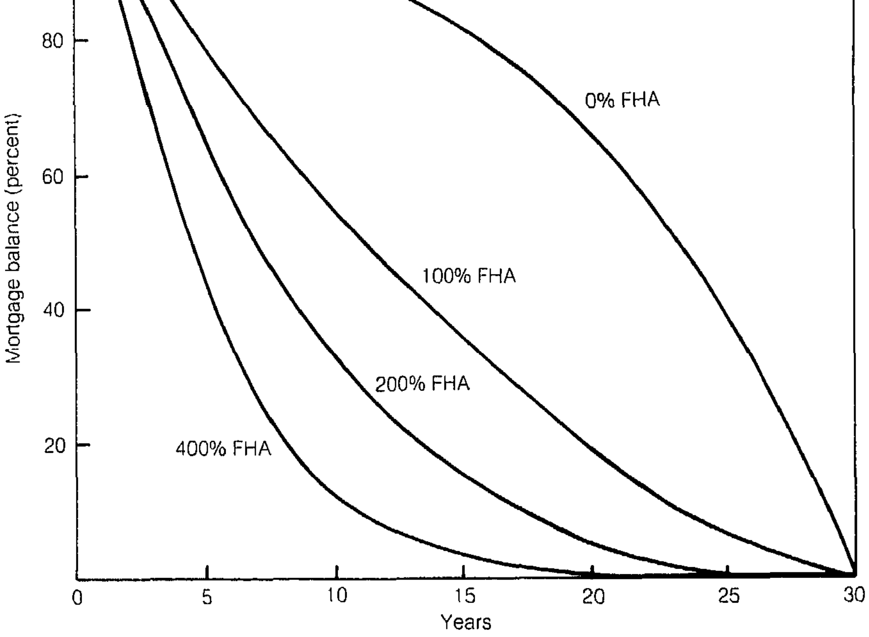
It should be mentioned that not all of the decimal balances are based on actual mortgage prepayment data. Exhibit 5 shows the year through which the mortgage data were taken. For instance, the 1981 study used data through the end of 1980. Since the data started in 1957, the latest study had only 24 years of information on which to base 30 years of prepayment estimates. Therefore, the last six years of data in the 1981 study are extrapolations of the earlier data.

Historically, there has been some controversy as to the exact interpretation of FHA-experience multiples. In fact, the investment community reversed itself in 1979 and changed the standard computation. To illustrate with an example, suppose we are given a four-year-old mortgage pool and asked to determine the proportion of mortgages that would prepay during the next year at a 200 percent FHA-experience rate. We know that at 100 percent FHA experience, the decimal balance table goes from .84965 after four years to .79839 after five years - a decrease of .05126. According to the old (and currently obsolete) computation, at 200 percent FHA, we would have expected to see a decline of 2(0.05126), or 0.10252, in the *mortgage population. The accepted* procedure currently is somewhat more sophisticated. To begin with, we look at the proportion of mortgages normally expected to survive between years 4 and 5. This is given by the ratio of the decimal balances: 0.79839/0.84965 = 0.9397 (or 93.97 percent). Now, at an arbitrary prepayment rate, we compute the ratio of survivors by raising this number to the power of the FHA multiple - in this case, we square it. Thus, we to prepay in year 5. Note that these two precedures will give equivalent results at 0 percent FHA and at 100 percent FHA, but different results for everything else.

FHA-Exp as of Year	*1974*	*1975*	*1977*	*1978*	*1979*	*1980*	*1981*
0	1,00000	1,00000	1,00000	1,00000	1,00000	1,00000	1,00000
1	.99191	.99161	.99187	.99186	.99163	.98993	.98880
2	.96707	.96360	.96246	.96246	.96063	.95036	.95172
3	.93425	.92884	.92207	.92253	.91892	.89668	.90090
4	.89564	.88920	.87666	.87740	.87289	.84139	.84965
5	.85425	.84692	.82972	.82978	.82380	.78728	.79839
6	.81060	.80291	.78252	.78267	.77424	.73430	.74676
7	.76702	.75907	.73765	.73746	.72756	.68304	.69785
8	.72798	.71727	.69570	.69490	.68357	.63459	.65191
9	.68712	.67760	.65710	.65566	.64264	.58952	.61100
10	.65033	.63991	.62084	.61921	.60480	.54752	.57486
11	.61292	.60122	.58638	.58432	.58685	.50836	.53998
12	.57933	.56710	.55449	.55128	.53486	.47196	.50748
13	.54425	.53168	.52325	.51945	.50245	.43794	.47715
14	.51381	.50038	.49416	.48841	.47118	.40612	.44880
15	.48959	.47585	.46766	.45781	.44062	.37635	.42227
16	.46484	.45116	.44448	.42724	.41034	.34810	.39540
17	.44151	.42569	.42482	.39639	.37997	.32085	.36842
18	.41619	.40123	.40754	.36496	.34940	.29436	.34156
19	.39159	.37756	.38276	.33247	.31866	.26865	.31504
20	.36869	.35508	.35881	.30121	.28761	.24400	.28910
21	.34821	.33585	.33574	.27130	.25808	.22061	.26394
22	.32618	.31176	.31357	.24286	.23015	.19842	.23973
23	.30415	.29154	.29230	.21598	.20390	.17776	.21663
24	.28212	.21732	.27497	.19075	.17940	.15861	.19745
25	.26010	.25110	.25256	.16724	.15669	.14092	.17418
26	.23808	.23088	.23410	.14548	.13580	.12465	.15499
27	.21606	.21066	.21657	.12551	.11673	.10975	.13720
28	.19404	.19044	.19997	.10734	.09948	.09618	.12083
29	.17202	.17022	.18429	.08464	.07767	.07880	.09990
30	.15000	.15000	.17000	.06200	.05590	.06140	.07900
Data through	*1971*	*1972*	*1975*	*1976*	*1977*	*1979*	*1980*

Unlike SMM experience, which merely quantifies prepayments, FHA experience represents a normal rate of prepayments as measured on actual mortgages. It allows for different paydown rates depending on how old the mortgage is. For example, the number of terminations in the second year can be seen to be roughly three times the rate in the first year. This is an appealing notion, since the circumstances leading to a default, refinancing, or other reason the older the mortgage, the more likely it is to terminate.

Mortgage market participants measure the prepayment rates of pass-through pools in terms of percentages or multiples of FHA experience. A pool conforming to the FHA prediction is said to prepay at 100 percent FHA experience. Pools prepaying at twice the normal rate are said to be 200 percent FHA pools, and so on. A pool experiencing no prepayments at all is said to be a 0 percent FHA pool. Exhibit 6 graphs the pool factor of a new 10 percent pool as a function of time for various FHA-experience rates. Notice that the 0 per-



As with SMM experience, FHA experience can be measured either cumulatively or as an interim prepayment rate for some specific time period. Pools with cumulative prepayment rates that are above average are often referred to as *fast-pay* pools. Surprisingly, the average prepayment rate for most pass-through securities does not turn out to be 100 percent FHA. Exhibit 7 is a graph of the monthly average (interim) prepayment rates, expressed as multiples of FHA experience for three large sectors of the pass-through market: GNMA Single-Family securities (Section 203), GNMA Graduated-Payment securities (Section 245), and FHLMC Participation Certificates (conventional mortgages). The graph shows that the prepayment rate for the market as a whole can vary substantially with time. Except for GPMs, the securities on the exhibit have prepaid faster than 100 percent FHA in some periods and slower than 100 percent FHA in others. This is why the concepts of fast pay and slow pay are (or should be) relative to the universe of securities outstanding and not the 100 percent FHA standard.

Exhibit 8 is a graph similar to Exhibit 7 but expressed in SMM terms. The GNMA Mobile Home sector is also shown on this chart. Again, there is considerable fluctuation in historical rates of prepayment, and no one number suggests itself as "the" appropriate prepayment rate. One cannot help noticing the obvious prepayment pattern in both exhibits. As interest rates in general (and mortgage rates in particular) skyrocketed in the late 1970s and early 1980s, the housing market was "crunched." The low volume of home construction and turnover led to a drastically reduced level of prepayment activity from the levels prevailing in the mid-70s.

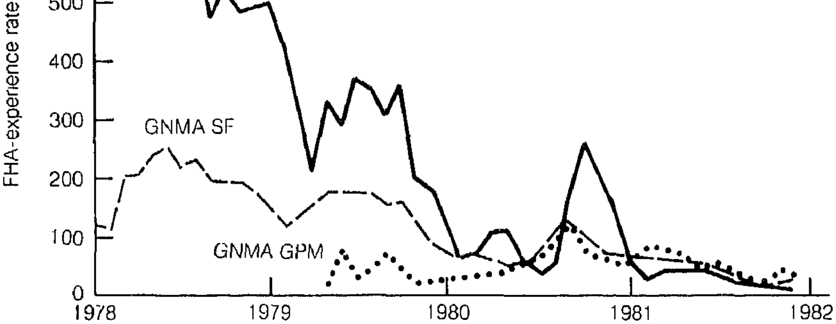
Pros and Cons of FHA Experience

Perhaps the greatest asset of FHA

The best mathematical selling point for FHA experience is the fact that it is founded on the basis of actual historical behavior of mortgage prepayments and therefore embodies a pattern of increasing termination probabilities known to be representative. This underlying pattern is preserved even if multiples of FHA experience are being used to quantify or predict a pool's behavior.

This is not to say that FHA experience is without its drawbacks, however. One disadvantage, which is probably better described as an abuse, is that the original HUD study quantified prepayments on Section 203 loans, but FHA experience is being applied as a predictor for prepayments on virtually all types of 30-year loans. The applicability of termination data computed for level-payment mortgages to graduated-payment mortgages (to choose one example) is at best questionable and at worst seriously misleading when employed in a predictive capacity.

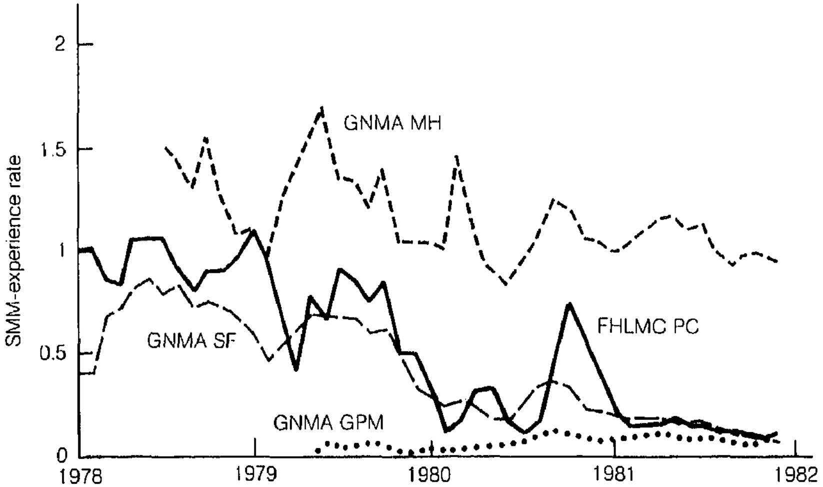
A second disadvantage to FHA experience is the fact that the data upon which it is based are old. Since the HUD study utilizes information beginning in 1957, most of the mortgages in the study carried relatively low interest rates in comparison with today's levels. Furthermore, the prepayment trends that are built into the decimal balance table are largely a reflection of mortgage behavior in the 1950s and 1960s, when the economic and social climate were vastly different from that of the 1980s. One outcropping of this age problem can be seen in the HUD analyses of terminations by State. In the late 1970s, it became evident to most mortgage analysts that certain regions of the country - most notably the Southwest, California, and Florida - were experiencing faster mortgage prepayments than the rest of the country by virtue of their strong economic growth and population influx. The FHA-experience from data, however, would have indicated just the reverse. In



Source: The First Boston Corporation.

Exhibit 8

Monthly Interim SMM-Experience Rates



Source: The First Boston Corporation.

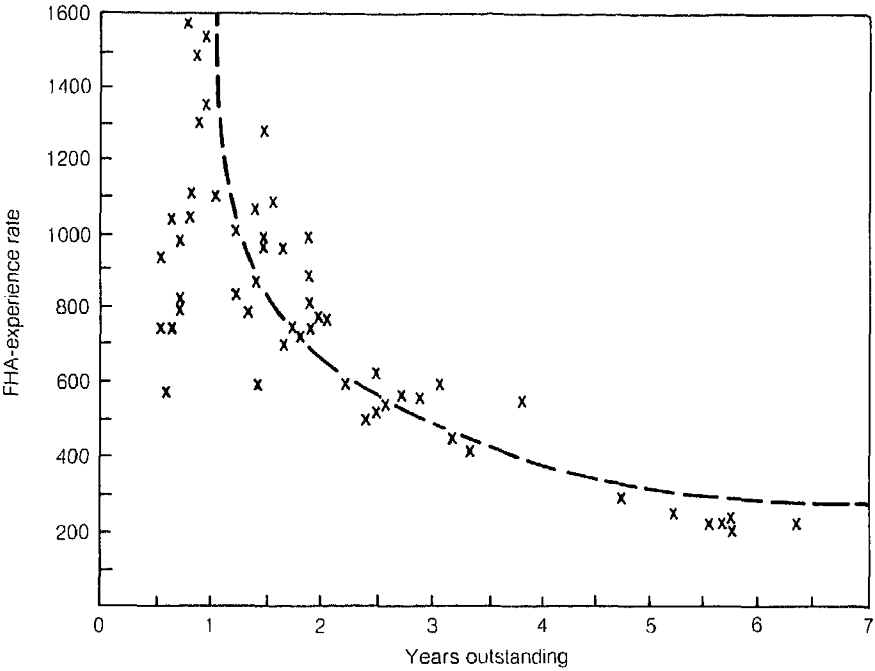
fact, the HUD figures showed the fastest prepaying States to be Maine, Vermont, and New Hampshire.

A third problem often cited with regard to FHA experience is its ignorance of variables that are known to have significant influences on prepayments. The only parameter considered by the FHA-experience model is the age of the mortgages. The most notable parameter not in the HUD study is the mortgage interest rate. As one might expect, mortgages carrying higher interest rates tend to be more likely candidates for prepayments, especially during periods of declining interest rates, when refinancing becomes attractive. Several other variables, including the level of interest rates (yields) in general, the level of housing activity (e.g., housing starts), and seasonal factors are known to play an important part in determining prepayment activity. These, too, are absent from the FHA-experience model, although for predictive purposes, that may actually be considered an advantage. If one's goal is to calculate a yield based on assumed prepayments, it is

available, resulting in a short period of confusion by some market participants as to which numbers are correct. Since the alternative (of having no future updates) is even less palatable than the problem itself, this is a problem most investors are willing to live with.

The ultimate test of any prepayment model is its ability to successfully describe the historical prepayment behavior known to have taken place and the ease with which it can be used to predict future prepayments. On these grounds, FHA experience is about as good as most alternative models. It is interesting, though, that the SMM model, which is obviously simpler than FHA experience (no parameters versus one), is actually more effective in describing the behavior of certain mortgage pools. In fact, SMM was conceived in 1978 by The First Boston Corporation as an attempt to more accurately quantify yields on FHLMC PCs.

Exhibit 9 is a scatter diagram of age versus FHA-experience rate for all of the FHLMC PCs that have been outstanding at least six months in mid-1978. There was a rather strong indication from the data that FHA experience (measured cumulatively) tended to decline on PCs over time. Because the FHA-experience data have a built-in acceleration of expected prepayments, the idea that PCs might simply have constant paydown rates in absolute percentage terms suggested itself. The dotted line on the exhibit is where pools would lie if they were to repay at a constant 1 percent SMM rate; the correlation was obvious and tantalizing. The final test of SMM came when First Boston measured its "standard error" in describing the pattern of FHLMC PC factors versus the error from FHA experience. SMM was found to reduce total squared error by anywhere from 50 percent to 75 percent for various PC pools. As a consequence, SMM gained popularity as a prepayment tive approach to FHA experience for the production of yield tables.



Note: This chart, originally prepared in 1978, shows how the idea for the SMM prepayment model was conceived. Each x represents a FHLMC PC; the FHA-experience rate of the PC is plotted versus its age. The older pools were the slower prepaying pools. The dotted line shows where the xs would be if all pools prepaid at a rate of 1 percent SMM. The fit to the actual data was tantalizingly close.

Average Life Versus Half-Life

Buyers of mortgages and pass-through securities are generally interested in two statistics that summarize the nature of their investments. The first of these is the yield, or rate of return, of the investment, which is a subject we shall address shortly. The other is the life of the investment, or the span of time over which the rate of return is realized.

One could argue (correctly) that since the cash flow of a 30-year pass-through security extends all the way to 30 years (barring complete extinction of the pool beforehand), the life of the security is 30 years. However, as Exhibits 4 and 6 showed, most of the principal amount in a mortgage pool is retired, due to amortization and prepayments, well before that time. Investors found it desirable to quantify the effective lifetime of a pool in a way that accounted for its principal paydowns. There are two traditional approaches to this problem, known as ***average life*** and ***half-life.***

Half-life is probably the easier of the two measurements to explain. The half-life of a security is the number of years that must elapse before half of the principal is repaid. Exhibit 10 illustrates the half-life concept by graphing the total principal payments (amortization plus prepayments) that would be received from a 30-year, 9½ percent GNMA security of 200 percent FHA experience. The half-life of the security is 6.5 years and is indicated by a vertical line. When depicted in this fashion, half-life has a simple geometric interpretation: It is the vertical line that divides the graph into equal portions. In other words, the two shaded regions on the exhibit have areas that are equal.

One of the drawbacks of half-life is that it fails to consider the actual timing of the graph lying to the right of the half-life line into a tall, narrow band. Most investors would agree that such a cash flow has a shorter life than it did before. However, the half-life statistic would not change. Because all of the squeezing occurs after the halfway point, nothing happened to affect the half-life measurement; half of the issue is still retired by the end of 6.5 years. Although this example is somewhat perverse, it does indicate the need for a more sensitive measurement of the effective term, and average life provides such a measurement.

The average life of a security is the average number of years that each principal dollar will be outstanding. Stated differently, it is the number of years that each dollar in a pass-through pool can be expected to survive. downs, using as weights the dollar amounts of the paydowns. Like half-life, average life has a geometric interpretation, which is shown in Exhibit 11. The graph shows the same cash flow as does Exhibit 10, but this time we consider the horizontal axis to be a seesaw. Each payment is a weight on the seesaw; the greater the payment, the heavier the weight. Average life turns out to be that location on the axis where the fulcrum of the seesaw must be placed in order to make it balance. In this example, average life works out to about 8.2 years.

Unlike half-life, average life is sensitive to any shifts in the timing of principal repayments. For example, if the security were to prepay in year 7 as previously supposed, the seesaw would become imbalanced to the left. In order to restore

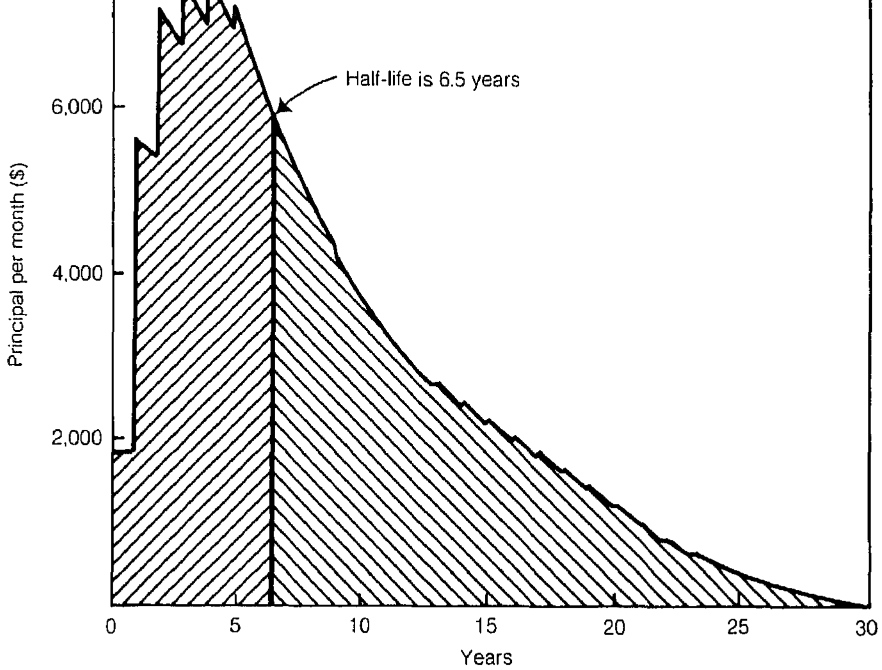
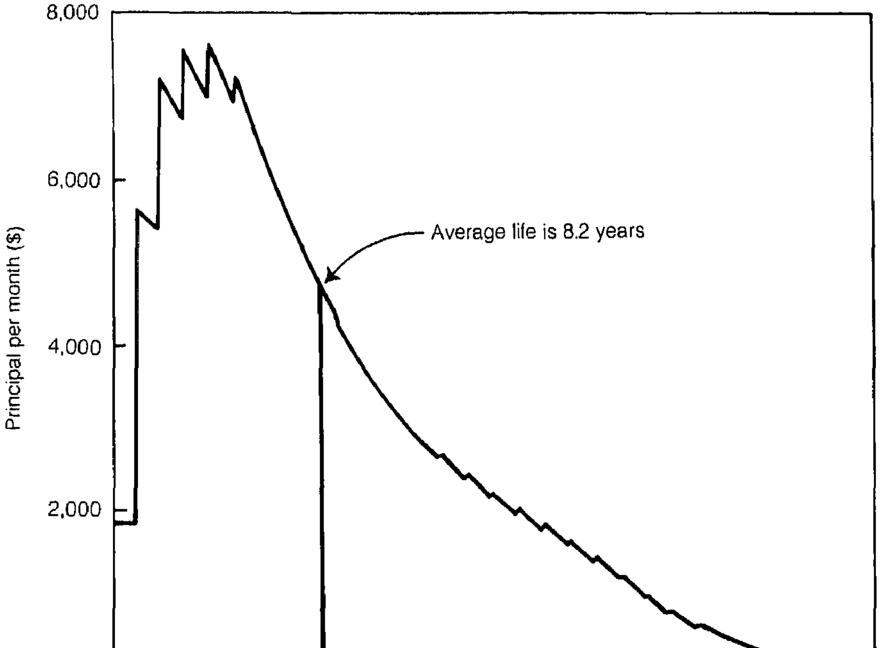


Exhibit 11

Average Life of a $1 Million GNMA Security (200 percent FHA experience assumed)



must go to zero by the time the pass-through matures. Exhibit 12 graphs the average lives of a GNMA 9½ percent pass-through over time at various assumed rates of FHA experience. The higher the prepayment rate, the shorter the average life, although as time elapses, the differences in average life (for different prepayment notes) become smaller.

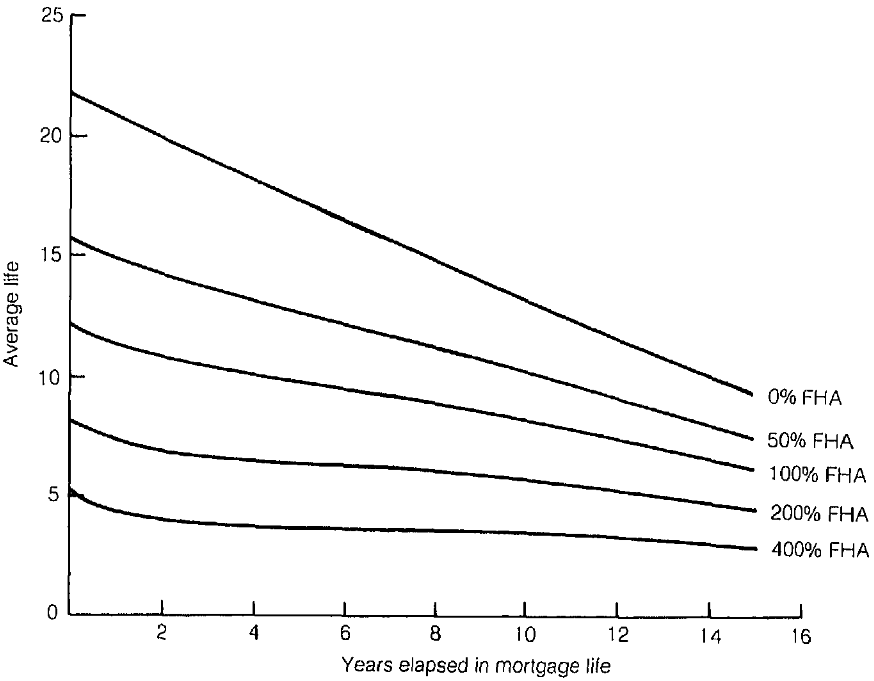
Average life is typically longer than half-life for pass-through securities because of the nature of the cash flow. Pass-throughs generally return more dollars in their early years than in their later years. This keeps the half-life short, but the leverage on the seesaw provided by the few dollars going out to the later years keeps the average life from getting as small.

Despite its greater difficulty in computation, average life is generally regarded to be superior to half-life as an estimate of the effective period over which returns are generated. Average life is quite sensitive to changes in a pass-through's prepayment assumption and/or its age. Although average life is not as accurate a measure of volatility as it is purported to be, it should continue to be used in conjunction with yield to arrive at an overall evaluation of an investment.

Yield Measurement

There is very likely no market as rich in controversy as the pass-through securities market when it comes to the subject of yield. The selection of the correct yield for a given pass-through at a given price is virtually the name of the game. Yet, for all of the possible yields a security might have, there is really only one way to mathematically arrive at that yield. The various models, prepayment rates, and other assumptions determine the amount and timing of the cash flow received by the investor. Given the cash

Average Life of a GNMA 9½ (assuming various prepayment rates, over first 15 years)



The yield of any investment is a measurement of its equivalent rate of return. Mathematically, yield should be viewed as a discounting rate used to compute present value. An investor who buys a security spends some amount of money in order to receive a series of future payments. In the case of pass-throughs, these future payments may not be known with certainty. In any event, when these future payments are converted to present value equivalents and summed, the result should be the known market price. Yield (or more properly, yield to maturity) is the discount rate that makes this relationship true.

The yields that are quoted for pass-through securities fall into two general categories: mortgage yield and cash flow yield. Mortgage yield is based on certain simplifying assumptions that force a definite cash flow into the yield calculation, and as such it is useful only for very rough comparison purposes and

Mortgage Yield

Mortgages were bought and sold as whole loans by mortgage bankers and thrift institutions long before high-speed computers made the computation of yields easy. Fifty years ago, one did not have the luxury of being able to speculate as to the yield impact of the future prepayment rate of a mortgage or a mortgage pool. In fact, such prepayment models as FHA experience and SMM did not even exist. As a result, yields on mortgages were obtained by looking up the instrument in a yield book - often having to interpolate between available results to compensate for fractional coupon rates or prices.

Most yield books for mortgages contained columns of numbers corresponding to various years to prepayment. (See Exhibit 13.) It was assumed that a mortgage or mortgage pool would experience no prepayments at all for the indicated

the cash flow shown goes out no farther than 12 years. Second, this pattern is similar to that of an ordinary 12-year bond, which suggests that mortgage yields might be approximated using existing yield computations for corporate or government bond issues. Unfortunately, the cash flow in Exhibit 14 is different from that on straight debt in three respects, which are strong enough in combination to render the traditional bond yield books unusable:

1. The cash flow for the mortgage yield is *monthly as opposed to the semiannual* cash flow on ordinary bonds.
2. The mortgage cash flow returns some *principal (in the form of amortization) over* the entire period; whereas, for straight debt, all principal is repaid at maturity.
3. The existence of any servicing fee prevents the mortgage cash flow from being level up to its termination date, whereas straight debt pays level coupons.

In the event that the mortgage yield is being computed for a pass-through security, a fourth difference exists - payment delay. The longer the investor must wait to begin receiving payments, the lower the investor's net yield will be, other things being equal. This effect is not quantified in traditional bond yield tables, since bonds ordinarily have no payment delays.

Exhibit 13 makes it clear that the choice of the number of years to prepayment is critical in determining the mortgage yield when the price is significantly different from par. Unfortunately, there was no way to know a priori when a mortgage investment was going to terminate, so some type of assumption had to be made. Over time, the mortgage industry evolved certain standard assumptions, which would be used in deciding the years to prepayment when there was no compelling reason to choose another number. These standards, still in use today, are displayed in Exhibit 15. The exhibit shows that for 30-year mortgages

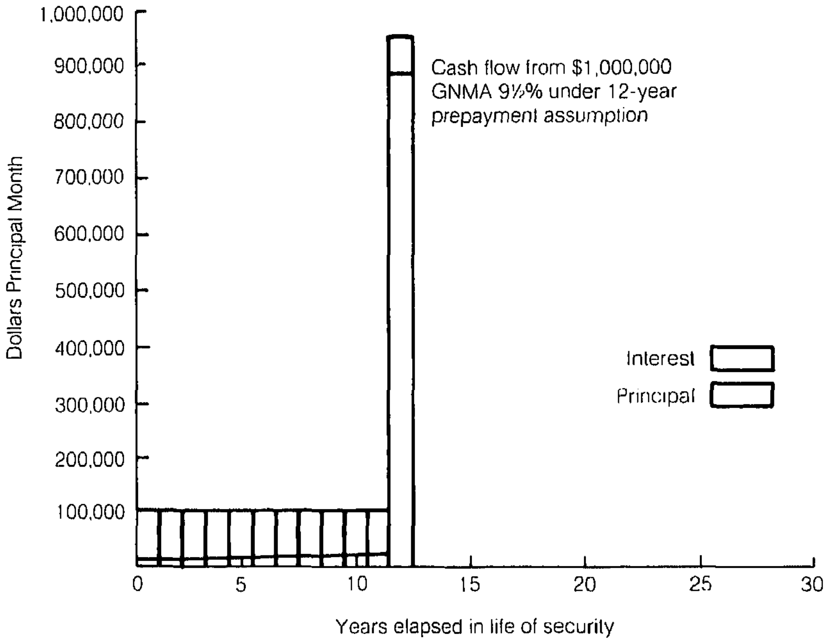
Exhibit 13

Pass-Through Yields and Corporate Bond Equivalents

GNMA 15

Prepaid	8 Years	10 Years	12 Years	15 Years	18 Years	20 Years	25 Years
Price	GNMA FOR Yield CBE	GNMA FOR Yield CBE	GNMA FOR Yield CBE	GNMA FOR Yield CBE	GNMA FOR Yield CBE	GNMA FOR Yield CBE	GNMA FOR Yield CBE
75	21.44 + 98	20.88 + 93	20.55 + 90	20.27 + 88	20.13 + 86	20.08 + 86	20.02 + 85
76	21.11 + 95	20.58 + 90	20.26 + 87	20.00 + 85	19.86 + 84	19.81 + 84	19.76 + 83
77	20.80 + 92	20.29 + 88	19.99 + 85	19.73 + 83	19.60 + 82	19.55 + 81	19.50 + 81
78	20.49 + 89	20.00 + 85	19.71 + 83	19.47 + 81	19.35 + 80	19.30 + 79	19.25 + 79
79	20.19 + 87	19.73 + 83	19.45 + 81	19.22 + 79	19.10 + 78	19.05 + 77	19.00 + 77
80	19.89 + 84	19.45 + 81	19.19 + 78	18.97 + 77	18.85 + 76	18.81 + 75	18.76 + 75
81	19.60 + 82	19.18 + 78	18.94 + 76	18.72 + 75	18.61 + 74	18.57 + 73	18.53 + 73
82	19.31 + 79	18.92 + 76	18.69 + 74	18.49 + 73	18.38 + 72	18.34 + 72	18.30 + 71
83	19.03 + 77	18.66 + 74	18.44 + 72	18.25 + 71	18.15 + 70	18.12 + 70	18.07 + 69
84	18.75 + 75	18.41 + 72	18.20 + 70	18.02 + 69	17.93 + 68	17.89 + 68	17.85 + 68
85	18.48 + 73	18.16 + 70	17.97 + 69	17.80 + 67	17.71 + 67	17.68 + 66	17.64 + 66
86	18.21 + 71	17.92 + 68	17.74 + 67	17.58 + 66	17.50 + 65	17.47 + 65	17.43 + 65
87	17.95 + 68	17.67 + 66	17.51 + 65	17.37 + 64	17.29 + 63	17.26 + 63	17.22 + 63
88	17.69 + 66	17.44 + 65	17.29 + 63	17.15 + 62	17.08 + 62	17.06 + 62	17.02 + 62
89	17.44 + 65	17.21 + 63	17.07 + 62	16.95 + 61	16.88 + 61	16.86 + 60	16.83 + 60
90	17.18 + 63	16.98 + 61	16.85 + 60	16.74 + 60	16.69 + 59	16.66 + 59	16.64 + 59
91	16.94 + 61	16.75 + 60	16.64 + 59	16.54 + 58	16.49 + 58	16.47+ 58	16.45 + 57
92	16.69 + 59	16.53 + 58	16.43 + 57	16.35 + 57	16.30 + 56	16.28 + 56	16.26 + 56
93	16.46 + 57	16.32 + 56	16.23 + 56	16.16 + 55	16.12 + 55	16.10 + 55	16.08 + 55
94	16.22 + 56	16.10 + 55	16.03 + 55	15.97 + 54	15.93 + 54	15.92 + 54	15.90 + 54
95	15.99 + 54	15.89 + 54	15.83 + 53	15.78 + 53	15.75 + 53	15.74 + 53	15.73 + 52
96	15.76 + 53	15.69 + 52	15.64 + 52	15.60 + 52	15.58 + 51	15.57 + 51	15.56 + 51
97	15.53 + 51	15.48 + 51	15.45 + 51	15.42 + 50	15.41 + 50	15.40 + 50	15.39 + 50
98	15.31 + 50	15.28 + 49	15.26 + 49	15.25 + 49	15.24 + 49	15.23 + 49	15.23 + 49
99	15.09 + 48	15.08 + 48	15.08 + 48	15.07 + 48	15.07 + 48	15.07 + 48	15.07 + 48
100	14.88 + 47	14.89 + 47	14.90 + 47	14.90 + 47	14.91 + 47	14.91 + 47	14.91 + 47
101	14.66 + 46	14.70 + 46	14.72 + 46	14.73 + 46	14.74 + 46	14.75 + 46	14.75 + 46
102	14.45 + 44	14.51 + 45	14.54 + 45	14.57 + 45	14.59 + 45	14.59 + 45	14.60 + 45
103	14.24 + 43	14.32 + 43	14.37 + 44	14.41 + 44	14.43 + 44	14.44 + 44	14.45 + 44
104	14.04 + 42	14.14 + 42	14.19 + 43	14.25 + 43	14.28 + 43	14.29 + 43	14.30 + 43
105	13.84 + 41	13.95 + 41	140.3 + 42	14.09 + 42	14.13 + 42	14.14 + 42	14.16 + 42
106	13.64 + 39	13.78 + 40	13.86 + 41	13.94 + 41	13.98 + 41	13.99 + 41	14.02 + 42
107	13.44 + 38	13.60 + 39	13.70 + 40	13.78 + 40	13.83 + 40	13.85 + 41	13.88 + 41
108	13.25 + 37	13.42 + 38	13.53 + 39	13.63 + 39	13.69 + 40	13.71 + 40	13.74 + 40
109	13.06 + 36	13.25 + 37	13.38 + 38	13.48 + 38	13.55 + 39	13.57 + 39	13.60 + 39
110	12.87 + 35	13.08 + 36	13.22 + 37	13.34 + 38	13.41 + 38	13.43 + 38	13.47 + 38
111	12.68 + 34	12.92 + 35	13.06 + 36	13.20 + 37	13.27 + 37	13.30 + 37	13.34 + 38
112	12.49 + 33	12.75 + 34	12.91 + 35	13.05 + 36	13.13 + 36	13.17 + 37	13.21 + 37
113	12.31 + 32	12.59 + 33	12.76 + 34	12.91 + 35	13.00 + 36	13.04 + 36	13.08 + 36
114	12.13 + 31	12.43 + 33	12.61 + 34	12.78 + 34	12.87 + 35	12.91 + 35	12.96 + 35

Cash Flow from $1 Million GNMA 9½ Percent (under 12-year prepayment assumption)



newspaper quotations or other market literature are mortgage yields. The third way in which mortgage yield is used as a standard is in "yield maintenance" trades. In the pass-through securities market, buyers often purchase securities for forward delivery, meaning that the trades will settle at some future date, usually from one to four months later. In some cases, it is not possible to guarantee to the buyer receipt of the exact coupon requested; this is because the securities the buyer receives may not have been created yet. In these situations, the buyer and seller agree that if another coupon is substituted, the price of the trade will be adjusted to maintain the original yield to the buyer. It is the mortgage yield that is referred to. In other words, the actual delivered coupon at the adjusted price has the same mortgage yield as the original coupon at the original price.

Drawbacks in Mortgage Yield

Before discussing cash flow yield, or HTG yield, it is appropriate to point out two problems with mortgage yield. It was these problems that led to the need for an alternative yield mechanism.

First, the cash flow assumptions underlying mortgage yield are viewed as unrealistic. The possibility of all the remaining principal balance prepaying on just one date may be reasonable for individual mortgage loans, but it is not reasonable for a mortgage pool. Because the pool has large numbers of mortgages contributing to the cash flow, its prepayments will tend to be spread out over time.

The second problem is more serious and yet is not realized by many market participants. Mortgage yield for a given type of security is always based on the same assumption as to years to prepayment and years to maturity, regardless of the actual age of the underlying mortgages. For example, GNMA 8 percent

Exhibit 15

Standard Assumptions behind Mortgage Yield

Security Type	*Years to Maturity*	*Years to Prepayment*	*Servicing Fee*	*Payment Delay (days)**
GNMA:				
Single family	30	12	½%	45
Graduated payment	30	12	½	45
Buydown	30	12	½	45
Mobile home A	12	5	2½	45
Mobile home B	15	7	2½	45
Mobile home C	18	9	2½	45
Mobile home D	20	10	2½	45
Project Loan	40	20	¼	45
FHLMC PC	30	12	0	75
FNMA	30	12	0	55
Private Issuers	30	12	⅜	55

* Notice that the actual time penalty for each security is 31 days less than the stated payment delay.

the accepted norm, it is often referred to using the security name itself. For exam-

meters appropriate for GNMAs), and FHLMC *yield* means mortgage yield for mortgage yields based on 30 years to maturity and 12 years to prepayment, regardless of the fact that many of these issues have only 25 years or less of remaining term. In fact, according to the rules, these issues' yields would still be quoted based on this 30/12 system, even when they are 20 years old and have only 10 years remaining term. This ignorance of mortgage age has the effect of seriously understating the true yield of older deep-discount securities. In fact, if left unchecked, this problem will be magnified every year as the existing population of pass-throughs continues to age. The market will undoubtedly be forced at some point to reevaluate its standards, but for those who prefer not to wait, there is another solution.

HTG Yield

Cash flow yield, or HTG yield, differs from mortgage yield in that the underlying cash flow is made to be as realistic as possible. This means accounting for all known factors, such as the age of the underlying mortgages, as well as projecting reasonable estimates for future prepayments. Prepayments are usually specified in the form of a percentage FHA- or SMM-experience rate. The name HTG is short for "honest-to-God" and was coined in 1977 by The First Boston Corporation; it was intended to suggest, if somewhat unsubtly, a superior estimate to the true yield of a pass-through. Unlike mortgage yield, there is more than one HTG yield for a given pass-through at a given price. In fact, there are infinitely many HTG yields, depending on the prepayment assumption used; no one prepayment model or experience multiple is cast as the "standard," although market conditions inevitably make some assumptions that appear to be more reasonable than others. Perhaps the greatest asset of HTG yield is its ability to evolve with a changing market environment.

Exhibit 16 is an example of an HTG yield). Also, each column of yields is followed by the average life of the security under the given assumptions.

Several points can be made using this one exhibit. First, notice that as FHA experience increases, average life decreases. This serves to raise the HTG yield at discount prices and to lower it for premium prices. Second, notice that increasing the mortgage age (thereby decreasing remaining term) has the same effect because this, too, decreases remaining average life. Finally, notice that GNMA yield is insensitive to either of these effects. There is only one GNMA yield at a given price, because neither age nor assumed prepayment rate enter into the mortgage yield computation.

The investor or analyst who has been accustomed to mortgage yield might find a quite different world in terms of HTG yield. The values of pass-throughs, both relatively and absolutely, are subject to change in the HTG analysis, particularly for older securities, higher assumed prepayment rates, and/or deeper discount prices. As an example, Exhibit 17 shows how the GNMA market looked in both GNMA yield and HTG yield perspectives at the end of 1981. The prices used are each coupon, and the prepayment assumption of 75 percent FHA experience was moderately bullish in posture at that time.

The investor or analyst who looked only at GNMA yields would see a pattern of generally increasing yields as coupon rates rise. This might seem appropriate, since it is typical in the fixed income markets for higher coupon issues to yield more, due *primarily* to tax considerations, reinvestment potential for incoming cash flow, and/or call protection. In the pass-through market, however, one would not always expect these traditional relationships to hold. It is true that GNMAs (or other pass-throughs) priced over par should carry a substantial yield premium as compensation for the risk that the issue could be prepaid and the investor assumption used. For example, a 4-year-old GNMA 9½ at par has a difference in yield of only one basis point between the assumptions of 50 percent FHA experience and 100 percent FHA. However, if the security were priced at 70, the difference in yield between the two assumptions is 125 basis points. The penalty for guessing wrong as to future prepayment rate is therefore far greater for low-coupon pass-throughs that carry deep-discount prices.

Returning to Exhibit 17, notice that the pattern of HTG yields (using 75 percent FHA and ages appropriate for each coupon level) is closer to the way one might expect to see it. It is the intermediate coupons that yield the least. High coupons yield more, due to risk of prepayments speeding up when their prices go above par, and lower coupons yield more to compensate for the risk that prepayments may be less than predicted.

Obviously, the GNMA yield and HTG yield columns paint very different pictures of the world in both absolute level of returns and relationships between coupon sectors. One always prefers to go with the picture that makes the most sense to the observer, and for this reason, HTG-yield analysis has become very popular.

Corporate Bond Equivalent Yield

Pass-through securities have a built-in advantage over traditional corporate or government debt, in that they make monthly payments of principal and interest as opposed to semiannual payments. Investors always prefer payments to be more frequent and/or begin sooner, since this gives them more time to reinvest the payments to earn additional income.

Both pass-through yield and HTG yield are computed on the basis of monthly compounding, and as such, they do not reflect this advantage over other securities. If one wishes to compare pass-throughs with corporate or government

Exhibit 16. Example of an "HTG" Yield Table

GNMA 9½				
	Servicing Fee	**½**	**Mortgage Age (Yrs)**	**4**
	Mortgage Rate	**10**	**Years to Maturity**	**26**
	Payment Delay	**45 days**		

HTG Yields for Various FHA-Experience Rates

Price	GNMA Yield	0	50	100	150	200	250	300	400	500	600	800	1
70,000	15.01	14.36	15.57	16.82	18.09	19.37	20.66	21.94	24.50	27.02	29.51	34.36	39
75,000	13.86	13.31	14.24	15.20	16.19	17.18	18.18	19.18	21.16	23.13	25.07	28.85	32
80,000	12.82	12.38	13.07	13.78	14.51	15.25	16.00	16.74	18.23	19.70	21.16	24.00	26
85,000	11.87	11.54	12.02	12.52	13.03	13.55	14.07	14.59	15.64	16.67	17.70	19.70	21
90,000	11.00	10.78	11.08	11.39	11.70	12.02	12.35	12.67	13.32	13.97	14.60	15.86	17
95,000	10.20	10.09	10.22	10.36	10.51	10.65	10.80	10.95	11.24	11.54	11.83	12.40	12
100,000	9.45	9.46	9.45	9.44	9.42	9.41	9.40	9.39	9.37	9.35	9.32	9.28	9
105,000	8.75	8.87	8.73	8.58	8.44	8.28	8.13	7.97	7.66	7.35	7.05	6.44	5
110,000	8.09	8.33	8.07	7.80	7.53	7.25	6.97	6.68	6.11	5.54	4.97	3.86	2
115,000	7.48	7.83	7.46	7.08	6.70	6.30	5.90	5.50	4.69	3.88	3.08	1.49	
Avg Life (Years)		18.15	13.19	10.08	8.02	6.59	5.56	4.79	3.73	3.05	2.58	1.97	1

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FHA Data as of 9/81 on S203 MTGES thru 12/80

GNMA 9½				
	Servicing Fee	**½**	**Mortgage Age (Yrs)**	**6**
	Mortgage Rate	**10**	**Years to Maturity**	**24**
	Payment Delay	**45 days**		

HTG Yields for Various FHA-Experience Rates

Price	GNMA Yield	0	50	100	150	200	250	300	400	500	600	800	1
70,000	15.01	14.55	15.74	16.99	18.26	19.55	20.86	22.18	24.83	27.48	30.12	35.33	40
75,000	13.86	13.46	14.38	15.34	16.32	17.32	18.33	19.35	21.41	23.46	25.51	29.56	33
80,000	12.82	12.49	13.18	13.89	14.62	15.36	16.11	16.87	18.40	19.94	21.47	24.50	27
85,000	11.87	11.62	12.10	12.60	13.11	13.63	14.15	14.68	15.75	16.83	17.90	20.03	22
90,000	11.00	10.83	11.13	11.44	11.75	12.07	12.40	12.73	13.39	14.06	14.72	16.05	17
95,000	10.20	10.11	10.25	10.39	10.53	10.68	10.82	10.97	11.27	11.58	11.88	12.49	13
100,000	9.45	9.45	9.44	9.43	9.42	9.41	9.40	9.39	9.37	9.34	9.32	9.27	9
105,000	8.75	8.84	8.70	8.56	8.41	8.26	8.10	7.95	7.63	7.32	7.00	6.36	5
110,000	8.09	8.28	8.02	7.76	7.48	7.20	6.92	6.64	6.06	5.47	4.89	3.72	2
115,000	7.48	7.76	7.39	7.01	6.63	6.23	5.84	5.43	4.61	3.79	2.96	1.30	
Avg. Life													

the table are in the form of basis point add-ons. As an example, let us consider GNMA 17s at a price of 102⅞, which is where they were at year-end 1981. (See Exhibit 17.) The table in Exhibit 18 indicates that for the GNMA yield of 16.32 percent the adjustment is 57 basis points, giving the GNMA-CBE yield of 16.89 percent. Similarly, the HTG yield of 16.28 percent (based on 30-year term, 75 percent FHA) has a CBE adjustment of 56 basis points, giving an HTG-CBE yield of 16.84 percent.

Notice that the adjustment does not depend on whether the starting yield is a mortgage yield or an HTG yield. All that matters is the absolute level of the initial yield. The mathematics are such that any monthly pay security will use the same table of adjustments for comparison to any semiannual-pay security.

The amount of the CBE adjustment rises very quickly as yield levels increase. The additional yield value in pass-through securities versus corporate bonds is therefore substantially more than it first appears during periods of high interest rates. Investors must remember to make this adjustment (or to use yield tables with the adjustment already built in) when operating in more than one market.

Parity Price

Bond investors are accustomed to the fact that at a price of par the yield to maturity of a bond is equal to its coupon rate. They are probably also aware that for pass-through securities this relationship does not hold true. As Exhibit 16 shows, at a price of par both mortgage yield and HTG yield are less than the coupon rate, and in fact HTG yield decreases for higher prepayment rates. The cause of this phenomenon is the payment delay. It can be shown mathematically that at a price of par, yield equals coupon only if there is no payment delay. (This is why the relationship is true for ordinary bonds.)

Coupon	Price 12/31/81	GNMA Yield	Assumed Age (Yrs)	HTG Yield
6½	55¾	14.79	9	18.57
7¼	57¾	15.26	6	18.12
8	60⅞	15.41	5	17.74
9	65¼	15.57	3	17.19
10	70⅜	15.55	2	16.68
11	75⅜	15.57	1	16.28
12½	83¼	15.55	1	15.98
13½	88⅜	15.58	1	15.85
15	94¾	15.88	0	15.95
16	98⅜	16.19	0	16.21
17	102⅞	16.32	0	16.28

Notes GNMA yield and HGT yield calculated based on monthly compounding. HTG yield assumes mortgages have ages as shown and that prepayments are at 75% FHA.

Exhibit 18

Yield Adjustments for Corporate Bond Equivalents

Yield Range	*BP*	*Yield Range*	*BP*
8.02- 8.30	+14	13.84-14.00	+41
8.31- 8.58	+15	14.01-14.17	+42
8.59- 8.85	+16	14.18-14.33	+43
8.86- 9.11	+17	14.34-14.49	+44
9.12- 9.37	+18	14.50-14.65	+45
9.38- 9.62	+19	14.66-14.81	+46
9.63- 9.86	+20	14.82-14.97	+47
9.87-10.10	+21	14.98-15.12	+48
10.11-10.33	+22	15.13-15.28	+49
10.34-10.55	+23	15.29-15.43	+50
10.56-10.77	+24	15.44-15.58	+51
10.78-10.99	+25	15.59-15.73	+52
11.00-11.20	+26	15.74-15.88	+53
11.21-11.41	+27	15.89-16.03	+54
11.42-11.62	+28	16.04-16.17	+55
11.63-11.82	+29	16.18-16.31	+56
11.83-12.01	+30	16.32-16.46	+57
12.02-12.21	+31	16.47-16.60	+58
12.22-12.40	+32	16.61-16.74	+59
12.41-12.59	+33	16.75-16.88	+60
12.60-12.77	+34	16.89-17.01	+61
12.78-12.96	+35	17.02-17.15	+62
12.97-13.13	+36	17.16-17.29	+63
13.14-13.31	+37	17.30-17.42	+64
13.32-13.49	+38	17.43-17.55	+65
13.50-13.66	+39	17.56-17.69	+66
13.67-13.83	+40	17.70-17.82	+67

to 99½. The parity price will be lower for higher coupon rates and/or greater payment delays.

Parity price is the analog to par in the pass-through market. Since a price of par is over the parity price, yields are less than the coupon rate and will decline as average life decreases, which accounts for the pattern in Exhibit 16.

Taxation

Like corporate and government bonds, pass-through securities are generally taxable. (The small quantity of pass-throughs issued in the municipal sector should be disregarded for the purposes of this section.) One does not often find a discussion of the tax aspects of pass-throughs, though, for two reasons. First, most pass-through buyers are tax-exempt institutions, such as pension funds, for whom the topic is not relevant. Second, there is some ambiguity as to exactly how pass-throughs should be taxed, which sections of the tax code apply, and so on. What follows here, therefore, is First Boston's present understanding of the tax aspects of pass-throughs, which at the very least should be checked with the reader's tax counsel.

There is no question that the coupon income from a pass-through represents ordinary income and is taxed as such. The controversy arises in the treatment of gains or losses on the return of principal due to amortization or prepayments. With ordinary bonds such gain or loss would represent capital gain or loss, and would be long term if the holding period (i.e., the time from purchase to the date of the principal payment) was more than one year. It seems that this capital gains treatment is not afforded to pass-throughs, on the grounds that to qualify for such treatment the obligor of the security (the party responsible for making the payment) must be a corporation or government-related body. The thinking is

paid principal are ordinary income, regardless of holding period. This is definitely a tax disadvantage for pass-throughs and perhaps explains why so few taxable investors own them. It may be some consolation that this adverse treatment applies only while the security is being held. If the security is sold, any gain or loss in the remaining principal balance once again becomes capital gain or loss, long term for holding periods of more than one year.

As if the tax treatment of pass-throughs were not complicated enough, it gets worse for GPM pass-throughs. As we have seen, GPMs experience negative amortization over their first few years, so their monthly payments are substantially smaller than for traditional mortgages. Taxable buyers of GPMs who are on an accrual basis must pay income taxes on the entire amount of interest that would have been paid on a traditional loan, even though only part of that interest was actually received. In other words, taxes are due on monies not received. The interest shortfall is treated as a deferred interest item by the tax payer. Since taxes have already been paid on it, it is not taxed when actually paid. Should a GPM pool exhibit prepayments, the first dollars of prepayments are used to reduce any deferred interest outstanding. It should come as no surprise that GPMs are even less attractive than ordinary pass-throughs to taxable buyers.

Prepayment Consistency

Imagine that you are an investor trying to choose between two GNMA pools for purchase into your portfolio. Both are GNMA 8s, both are about 3½ years old, both were issued by Philadelphia mortgage bankers, and both are offered at a price of 65 (14.33 percent GNMA yield) in May 1981. An investigation of the historical prepayment rates reveal that although both pools are above average in speed,

would automatically choose the fast-pay pool. Some investors, noting that at 600 percent FHA the HTG yield of such a security is more than 33 percent, would pay a substantial premium for the fast-pay pool. Other investors would take the position that future prepayments might not be as good as 600 percent FHA, but they would still favor the fast-pay pool because of its established trend of high prepayments. However, a recent study by The First Boston Corporation has revealed that the historical performance of a GNMA pool is in general a poor indication of its future performance, and it is entirely possible that the 200 percent FHA pool described above would be the superior investment.

Exhibit 19 details the payment history of two actual GNMA pools that have the characteristics just described. The total payment each month consists of three components: coupon (mortgage interest less servicing and guarantee fees), amortization, and prepayments (including defaults). Coupon payments and amortization for a month are predictable from the pool factor at the beginning of the month. Prepayments are the only unknown component, and it is the prepayments that ultimately make pass-through investments attractive or unattractive. (Usually, buyers of discount pass-throughs want prepayments, and buyers of premium securities do not.) Notice that the prepayments of the 200 percent FHA pool are strikingly regular through May 1981. The numbers from month to month are still unpredictable, but in 41 of the 43 periods the dollar amount of prepayments was at least $1000 (per million dollars original principal amount) The fast-pay pool, on the other hand, h more than 99.9 percent of its prepayments occur in the first three months lowing its issuance; an investor who chased the pool after April 1978 in expectation of fast prepayments wou have been very unpleasantly surprise Most people who could see the actual

Exhibit 19.

Prepayment Histories of Two Actual GNMAs

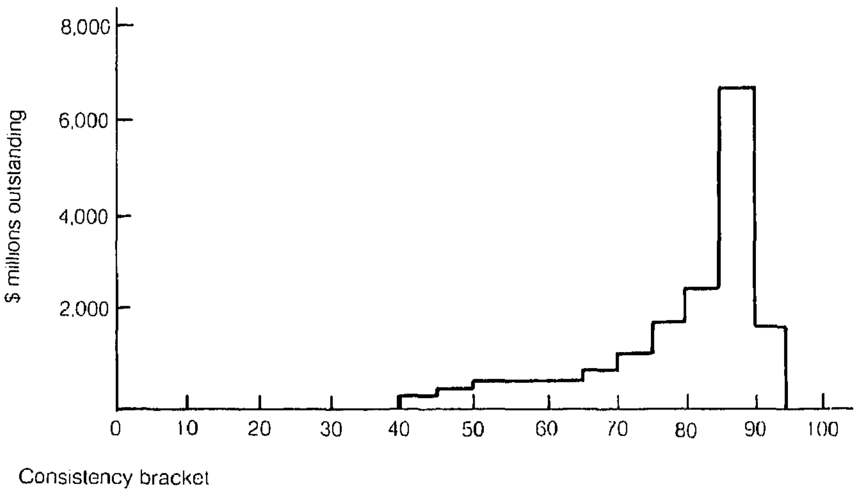
		Cash flow from $1 mil. GNMA 8 (No. 19886)					Cash flow from $1 mil. GNMA 8 (No. 17730)				
		Pool Factor	Amort	Prepay	Coupon	Total Payment	Pool Factor	Amort	Prepay	Coupon	Total Payment
1977	OCT	1.00000	$644	$1.078	$6.667	$8.389					
	NOV	.99828	648	4.540	6.655	11.843					
	DEC	.99309	650	6.147	6.621	13.417					
1978	JAN	.98629	650	8.593	6.575	15.819	1.00000	$634	$60	$6.667	$7.361
	FEB	.97705	649	6.823	6.514	13.986	.99931	639	84.661	6.662	91.962
	MAR	.96958	649	2.298	6.464	9.411	.91401	589	489.030	6.093	495.712
	APR	.96663	652	9.215	6.444	16.312	.42439	284		2.829	3.113
	MAY	.95676	651	3.024	6.378	10.053	.42410	286		2.827	3.114
	JUN	.95309	653	7.070	6.354	14.077	.42382	288		2.875	3.114
	JUL	.94537	653	3.697	6.302	10.652	.42353	290		2.824	3.114
	AUG	.94102	655	10.398	6.273	17.326	.42324	292		2.822	3.114
	SEP	.92996	652	12.679	6.200	19.531	.42295	294	22	2.820	3.136
	OCT	.91663	648	10.648	6.111	17.407	.42263	296		2.818	3.114
	NOV	.90534	645	7.850	6.036	14.530	.42233	298	22	2.816	3.136
	DEC	.89684	644	20.228	5.979	26.851	.42201	300	24	2.813	3.137
1979	JAN	.87597	634	11.079	5.840	17.553	.42169	302	24	2.811	3.137
	FEB	.86426	630	3.291	5.762	9.683	.42136	305	24	2.809	3.138
	MAR	.86034	632	5.506	5.736	11.874	.42103	308		2.807	3.115
	APR	.85420	633	5.466	5.695	11.794	.42073	310		2.805	3.115
	MAY	.84810	633	11.483	5.654	17.770	.42042	312		2.803	3.115
	JUN	.83598	629	6.822	5.573	13.024	.42010	315		2.800	3.115
	JUL	.82853	628	9.417	5.524	15.569	.41979	315	26	2.799	3.140
	AUG	.81849	625	8.302	5.457	14.384	.41945	318	25	2.796	3.140
	SEP	.80956	623	8.212	5.397	14.232	.41910	321		2.794	3.116
	OCT	.80072	621	9.604	5.338	15.563	.41878	324	25	2.792	3.141
	NOV	.79050	618	7.238	5.270	13.126	.41843	327		2.790	3.116
	DEC	.78264	617	12.506	5.218	18.340	.41811	329		2.787	3.116
1980	JAN	.76952	611	11.339	5.130	17.081	.41778	331		2.785	3.116
	FEB	.75757	607	5.659	5.050	11.316	.41745	334		2.783	3.116
	MAR	.75130	606	21	5.009	5.636	.41711	336		2.781	3.116
	APR	.75068	611	1.553	5.005	7.168	.41678	338		2.779	3.117
	MAY	.74851	614	3.047	4.990	8.651	.41644	340		2.776	3.117
	JUN	.74485	616	1.219	4.966	6.801	.41610	343		2.774	3.117
	JUL	.74302	619	3.728	4.953	9.300	.41576	345		2.772	3.117
	AUG	.73867	620	4.637	4.924	10.182	.41541	347		2.769	3.117
	SEP	.73341	621	1.917	4.889	7.427	.41506	351		2.767	3.117
	OCT	.73088	623	6.655	4.873	12.151	.41471	353		2.765	3.118
	NOV	.72360	622	2.231	4.824	7.677	.41436	355		2.762	3.118
	DEC	.72074	625	3.377	4.805	8.807	.41401	358		2.760	3.118
1981	JAN	.71674	626	29	4.778	5.433	.41365	360		2.758	3.118
	FEB	.71609	630	8.030	4.774	13.484	.41329	363		2.755	3.118
	MAR	.70743	628	5.054	4.716	10.398	.41293	365		2.753	3.118
	APR	.70175	628	5.752	4.678	11.058	.41256	368		2.750	3.118
	MAY	.69537					.41219				
	FHA-experience rate					208%	FHA-experience rate				637%

sons work out this way. Nevertheless, examples like this are not so rare either, and the possibility of this phenomenon should be cause for concern among investors.

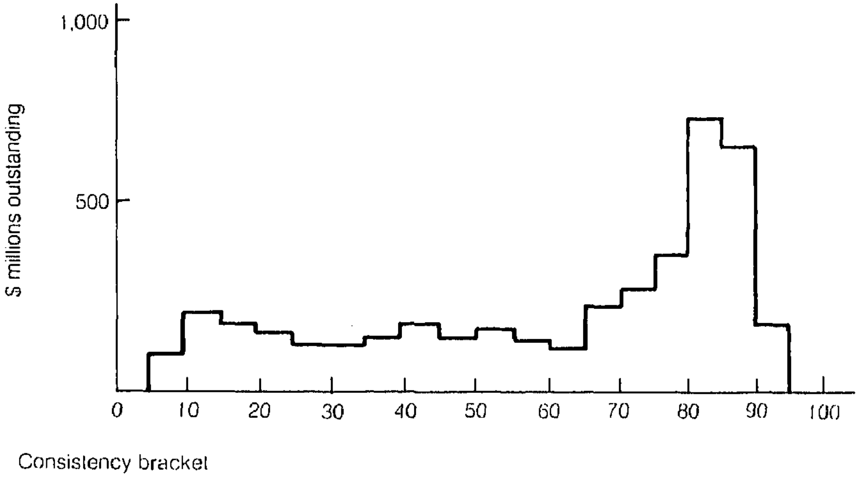
Because it would be extremely cumbersome for an investor to examine the detailed prepayment history of every pass-through pool before buying or selling it, it would be nice if there were some way of summarizing the consistency of historical prepayments into a single index. First Boston devised just such an index, which is referred to simply as C. This is not a perfect substitute for the detailed history, but it is a step in that direction. The possible values of C range from 0 to 100, where low numbers mean inconsistent prepayments, and high numbers mean consistent ones. In Exhibit 19, the first pool has a C-value of 84, and the second pool (the fast-paying pool) a value of only 15. Our experience with C indicates that values of 80 or more should be considered very consistent, and pools with C-values under 20 should have their prepayments rates viewed skeptically. C is based on a computation that considers the standard deviation of a pool's monthly prepayment record in relation to the maximum possible deviation the pool could have had. Also, C is adjusted for the effect of time. Pools that have not been outstanding very long can hardly be viewed as having established much of a trend, and their C-values will be mathematically constrained to being close to 50. Conversely, a pool with a very high or a very low consistency must by definition be a pool that has been outstanding for a reasonably long time.

Exhibit 20 displays the pattern of consistency as of May 1981 for the three largest sectors of the pass-through market: GNMA single-family (fixed payment), GNMA graduated payment, and FHLMC PC pools. In each case, the bracket with the single largest amount of pools has C of about 85 - apparently an optimistic note. Notice, however, that each

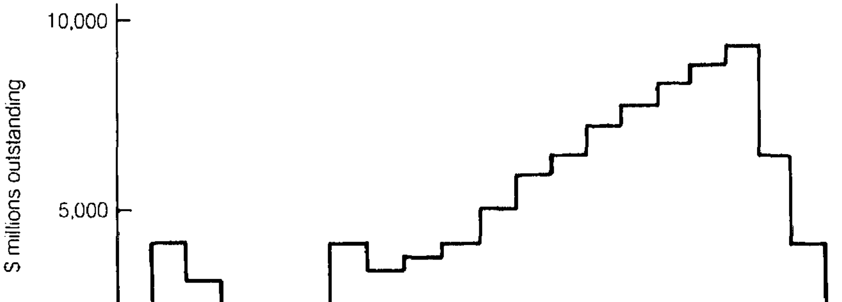
FHLMC PC



GNMA graduated payment



GNMA single family



There are two major differences in the composition of GNMA and FHLMC pools. First, FHLMCs are composed of conventional loans instead of the FHA/VA loans in GNMAs. It is not clear why this would make any difference as far as consistency is concerned. The other difference is pool size, and this can indeed make a difference. The average GNMA single-family or GPM pool is issued with an original balance of about $2 million, which means the pool contains about 50 loans (assuming an average loan size of around $40,000). Freddie Mac pools, though, contain several thousand mortgages, generally totaling more than $100 million, which gives PCs an advantage as far as consistency is concerned - the law of averages.

Mortgage prepayments and defaults, although influenced by seasonal and cyclical factors, are essentially random events. If a single homeowner whose mortgage is in a GNMA pool of 50 loans should move and prepay the loan, say after living in the home for about three years, the GNMA will show a prepayment rate of about 550 percent FHA for that month. (If the prepayment occurs before three years, the FHA multiple is even higher.) The statistical value of a forecast for the other 49 loans based on this one event is dubious. In a FHLMC pool, however, single events are not statistically significant; and in order to establish a prepayment trend, large numbers of mortgages must be involved. The law of averages makes a forecast based on this trend more reliable, and as a consequence the consistency of month-to-month prepayments should be higher.

Referring to Exhibit 19 again, it should come as no surprise that the first (consistent) pool had an original principal amount of $14.8 million, large by GNMA standards, and the second pool had an original size of only $1.0 million. There is another cause for high consistency in

Obviously, if a pool never has any prepayments, it is behaving as consistently as possible. A statistical analysis of the pass-through universe reveals a negative correlation between consistency and average prepayment rate for all sectors of the market. In other words, the more consistent pools tend to be the slower paying ones. This does not mean that every fast-pay pool is going to be inconsistent, but it does mean that a fast-pay consistent pool is relatively hard to find.

Arguments Against Consistency

Though there are several possible flaws in the consistency concept, consistency has withstood these challenges in most cases. First, it can be argued that inconsistency results from having a poor repayment model - in this case, FHA experience. Obviously, if a prepayment model could perfectly predict future prepayments, all pools would behave consistently, and if a model were terrible, pools would tend to prepay randomly. The reason consistency is meaningful under FHA experience is not because FHA experience is a great model (it is not), but because it is the premier model being used by investors and dealers. It is FHA experience that makes pools "fast-pay" in people's minds, so it is the FHA consistency that counts.

Another argument is that one-month periods are too short for pools to behave consistently and that more consistent patterns would emerge if longer periods were examined. This is reasonable, but untrue. We repeated the consistency measurement on all pass-throughs using three-month, six-month, and one year periods, and in most cases consistency actually was worse. Part of the reason for this is that high consistency mathematically requires many time periods - a pool's prepayment history has only one-twelfth the number of annual periods as monthly periods. But the fact that most six-year and older pools have lower quarterly consistency than monthly consis-

payments to fluctuate to a degree that destroys consistency. Again, this is a good possibility, but there is evidence against it. We took several thousand pools at random and ranked their prepayments relative to one another for each period. In other words, the prepayment rates were expressed as percentiles instead of absolute paydown rates. (The pools, in effect, were graded on a curve.) It turned out that the average change in the pool's percentile from one period to the next and the standard deviation of such changes were close to the values one would have obtained with a series of random numbers. This implies that no information is added (indeed, little even seems to be present) by accounting for overall market behavior.

One good argument against consistency is its failure to discriminate among pools based on the times at which prepayments occurred. In other words, two pools with all features alike except that one had gradually increasing prepayments and the other gradually decreasing prepayments would show the same value for C. By the same token, the fast-pay pool in Exhibit 19 would be equally inconsistent (but no doubt more attractive to investors) if its large prepayments had occurred in the most recent three months instead of the first three months. All that can be said is that no one index can fully describe a series of numbers. We do not believe that this type of behavior is common or that is poses a serious problem, but of course some sort of "prepayment acceleration index" could be invented. A more attractive alternative is to examine recent prepayment experience in addition to overall consistency.

Exhibit 21

Prepayment Consistency Report for Pass-Through Securities Data as of May 1981

					FHA-EXP for past				
Pool Number	*Coupon*	*Type*	*Dated*	*$MM Outstanding*	*3 Months*	*6 Months*	*1 Year*	*FHA to Date*	*C*
7071	8	SF	9/75	.82	2	2	*2*	*57*	*45*
8655	8½	SF	4/76	.82	0	113	*58*	*93*	*65*
12337	8	SF	10/76	.88	2	2	*2*	*45*	*45*
15569	7½	SF	2/77	.72	2	1	*158*	*155*	*68*
17730	8	SF	1/78	.41	0	0	*0*	*637*	*15*
17993	7½	SF	12/77	2.40	0	15	*49*	*146*	*65*
19662	8	SF	9/77	3.26	77	121	*109*	*115*	*69*
19886	8	SF	10/77	10.29	168	109	*102*	*208*	*84*
20013	8	SF	1/78	1.73	2	2	*45*	*92*	*64*
20995	8	SF	11/77	1.72	0	71	*109*	*85*	*54*
27754	9	SF	2/79	3.74	1	116	*64*	*81*	*53*
28005	8½	SF	12/78	.86	24	427	*308*	*197*	*46*
29336	9	SF	6/79	.96	283	142	*76*	*61*	*6*
38892	11	SF	1/80	.98	3	3	*157*	*137*	*20*
39112	11	SF	2/80	.97	0	266	*200*	*178*	*7*

Source: The First Boston Corporation

The Alternative

If consistency proves that historically fast-paying pools should be relied upon to provide high future prepayments (in the absence of other information), how should they be viewed? Based on a statistical theorem proved by Charles Stein in the early 1960s, it can be shown that for most GNMA pools a better guess for future prepayments is the average prepayment rate for the market, or even better, the average rate for similar pools of the same coupon. In other words, historical prepayment rates of individual pools are of little of no value in detecting the fast-pay GNMA pools of the future. First Boston advocates that investors obtain more information about specific pools before considering any trade at a price other than the going price for "ordinary" pools of the same type and coupon. Exhibit 21 shows the sort of information First Boston generates on every GNMA and FHLMC pool. In addition to the pool's overall prepayment rate and consistency, prepayment rates for the past three months, six months, and one year are shown (other periods could be chosen) to provide a feel for whether the prepayments have been coming or going. In conjunction with consistency, these prepayments give a good picture of the pool's behavior and get around the last problem cited earlier. The pools circled on the exhibit are the ones appearing in Exhibit 19.

As long as there are pass-throughs, there will be pools that prepay faster or slower than average. However, a pool's historical prepayment rate alone is not a good indicator of which pools will be the fast-pay pools of the future. The consistency index is a useful tool in making more reliable forecasts for individual pools. In the absence of a consistency index, investors are advised to concentrate primarily on pool size because there tends to be safety in large numbers. In any event, the concept of the fast-paying GNMA should be taken with several grains of salt.

ities have become relevant as a potential alternative vehicle for virtually every bond portfolio manager. In fact, within some portfolios, the role of mortgage securities has grown from that of a sector within the bond portfolio to the magnitude of a distinct asset class unto itself.

There are indeed fundamental differences between mortgage securities and the standard bond investment. However, over the past several years, the mortgage securities market has compensated the mortgage-security investor in the concrete form of a significant yield advantage. (See Figure 1.)

In addition to the sizable spread, Figure 1 shows that the mortgage market contains a full panoply of securities along the entire maturity spectrum. This is particularly true now because we are in a time where the number of different mortgage securities is growing at a rapid pace. We also have a distressed market situation due to the reallocation process of investors who have been in the thrift area. This creates some unique opportunities.

Let us now examine the yield relationships and the variations over time. (See Figure 2.) We can see the correlation is very high between the 10-year Treasury rate and the GNMA current coupon rate, and that these two rates move together. However, when looking on a closer scale, the bottom portion of Figure 2 shows there is considerable variation in this spread relationship. These are related to the level of rates, housing activity, general economic cycles, the evolving character of the mortgage market, etc. Unfortunately, we cannot study these relationships like we study situations in a laboratory – keeping all things constant and changing only one variable.

We must realize, then, that old patterns may no longer be relevant. When speaking about mortgages, we are really speaking about individual households

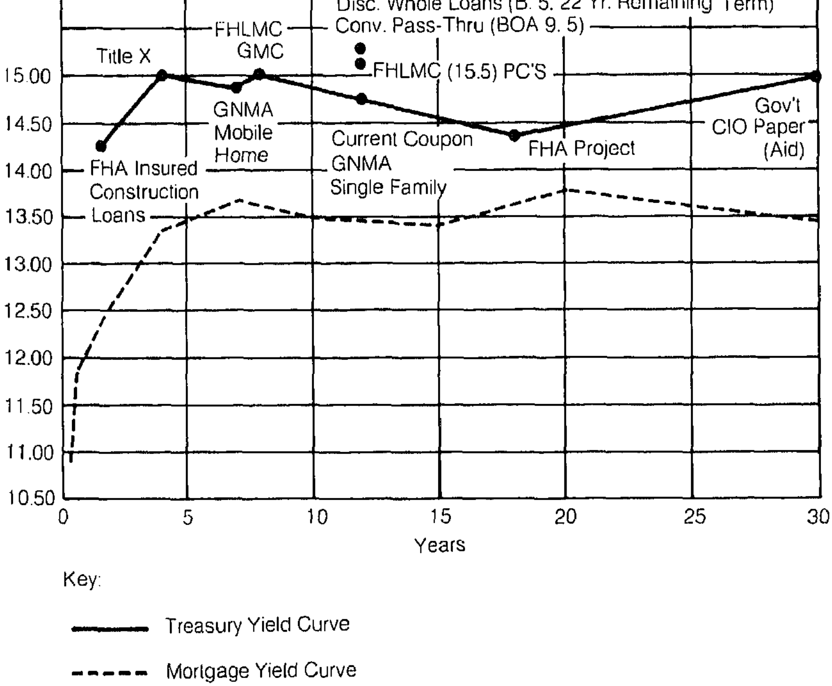
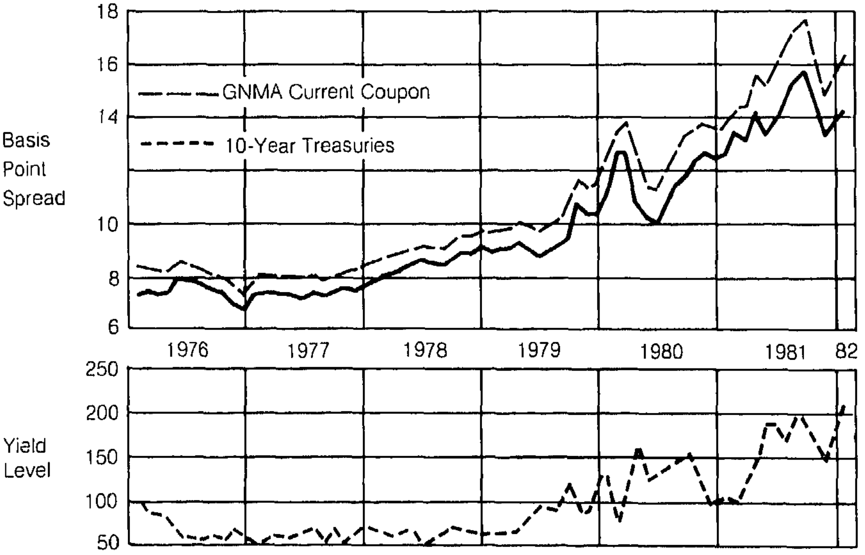


Figure 2

Time Chart of Yield Levels and Spreads GNMA Current Coupon versus 10-Year Treasuries



it at maturity." Now, in times of great interest rate sensitivity, households have become more sophisticated and more than ever before consider the advantages or disadvantages of prepaying their mortgages. These factors can lead to fundamental changes in the prepayment process.

Thus, past prepayment experience statistics, such as the FHA series, may not be automatically transferable into the future. We can see that this spread relationship between GNMA coupons and Treasuries bumped along in the 60-70 basis point range during the 1976 through 1978 period, and then the spread began to rise at the same time that interest rates began to rise. However, there are other important structural changes taking place at the very time that interest rates began to rise, i.e., the MMC coming into the thrift institution market in 1978. So, we have a confluence of events. The basic message is: read history very carefully.

Now let's take a look at the spread relationships for FHLMCs (Figure 3). These provide a higher yield spread over Treasuries. In addition, if one were to look at whole loan mortgages, we will find an even wider opening of spread relationships. Again, because of the fact that whole loans are now essentially coming out of the thrift industry, it is creating a disgorgement process which opens some very interesting opportunities.

First, we must realize that total return for pension funds is of paramount consideration. Even though a pension fund has a longer time horizon than most other investment portfolios, its returns are measured on a short term basis - at least quarterly and often monthly. Therefore, it is important to take a look at what short-term total return has been in mortgages versus other securities.

In Figure 4 we compare the returns of

Figure 3

Time Chart of Yield Levels and Spreads Mortgage Market Rates versus 10-Year Treasuries

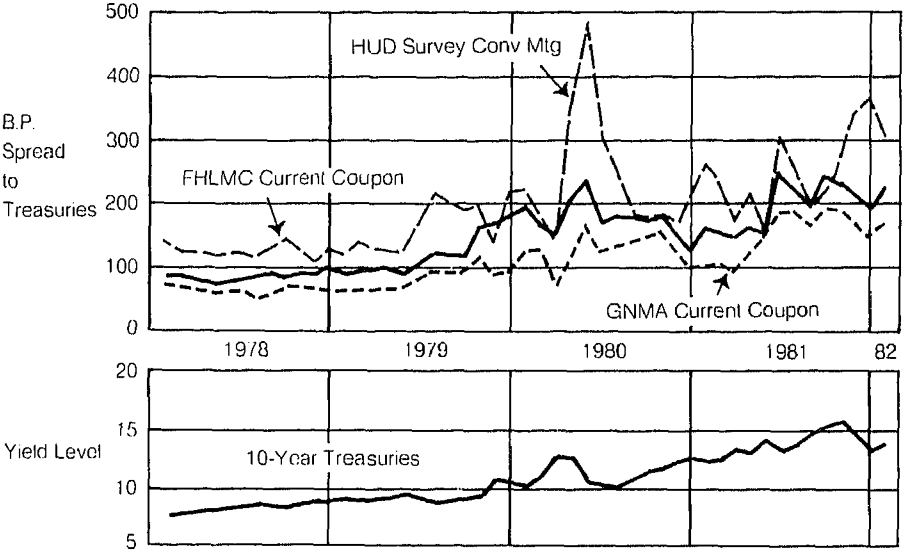
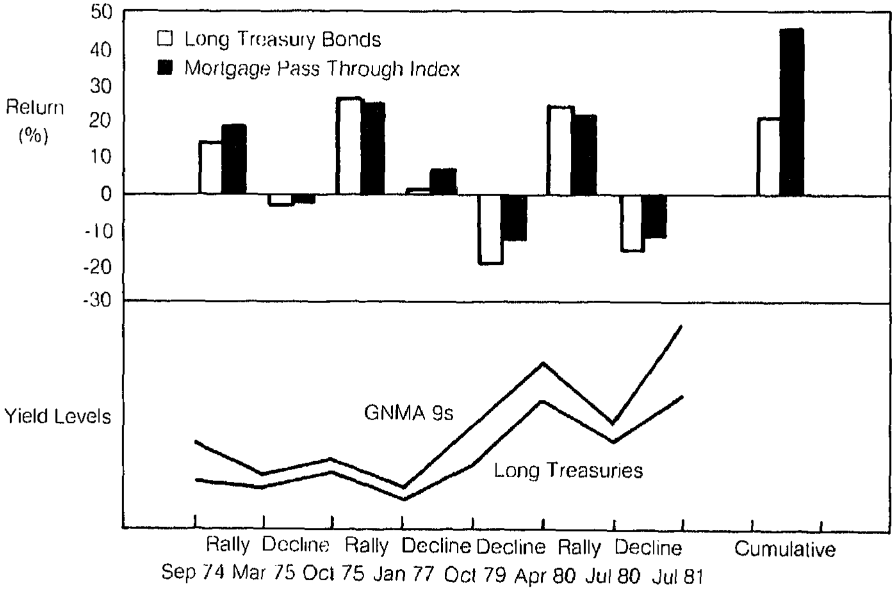


Figure 4

Long Treasuries versus Mortgage Securities Historical Returns Over Market Cycles



take too much comfort from these historical returns. Yields have generally been rising over this entire 1974-1981 period. Since mortgages tend to have shorter durations and less price sensitivity than Treasury bonds, one should therefore expect mortgages to perform somewhat better on an overall basis. However, it is fascinating to see how much these little chips of cycle-by-cycle extra return accumulate over the 7½ year period. On a total return basis, mortgages outperformed Treasuries by over 25%. This is a very interesting figure. It requiries considerably deeper analysis to really understand why.

Yield Relationships

Basically, the mortgage market has conventionally looked upon yields to a 12-year average life. Effectively, this model transforms the mortgage cash flow into a series of level payments up to the twelfth year when the investor receives a lump sum prepayment of the entire remaining principal. This hypothetical cash flow is depicted in Figure 5. This has the same general form as a bond, although a bond's flow consists solely of semiannual coupon payments with a final payout at maturity.

Therefore, if we ignored the shaded areas that distinguish principal repayments from interest (and the monthly mortgage payments), the pattern of flow would be much the same as for a 12-year bond. Now we know how to compute a yield value for a 12-year bond - or at least we think we do. In fact, we are more likely to compute it very quickly without thinking about it too much at all. In any case, we proceed to compute the yield value and we call it a yield-to-maturity.

Now suppose we have prepayments in addition to the regular amortization principal payments (see Figure 6). If you have prepayments at all, you will have

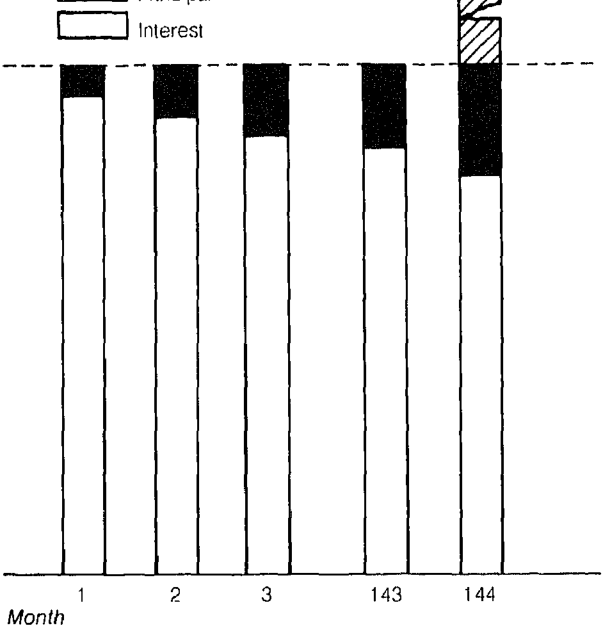
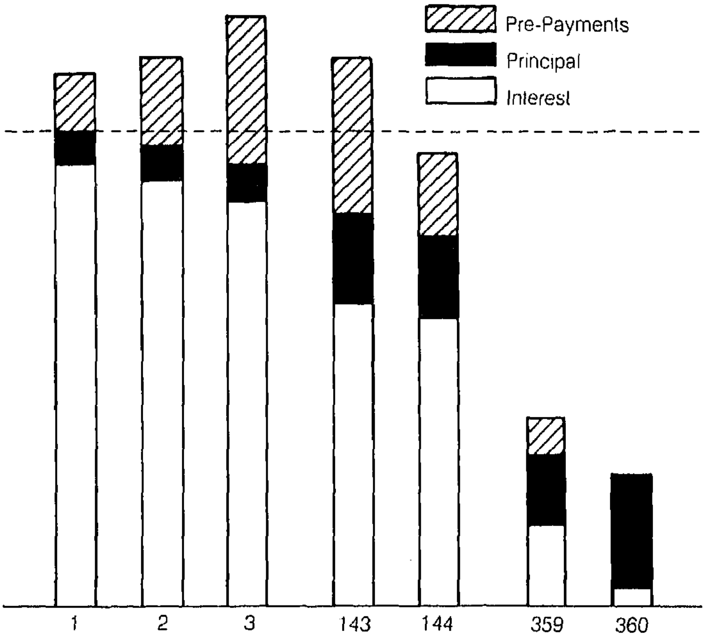


Figure 6

Mortgage Package Cash Flow with Variable Pre-Payments



pal and the later cash flows of both interest and principal. This leads to the cash flow pattern illustrated in Figure 6.

This accelerated cash flow can either help or hurt the investor. In the case of a discount security, the investor gets "chips of capital gain" that were not expected. This helps. For a premium bond, you are subject to mini refunding calls which can hurt.

Measures of Investment Value

There are a number of techniques that have been used to measure the yields of mortgage securities. One can make a certain type of assumption about what the prepayment pattern will be. You can talk about a certain percentage FHA. You can talk about a certain percentage prepayment rate being constant through time. You can go to some much more complex models which in fact relate your prepayment beliefs to housing starts in the relevant geographic areas, to interest rates, and to a whole complex econometric type of view of the future world or range of future worlds. In each such scenario, one can then generate a particular prepayment pattern which will in turn result in a particular cash flow.

Suppose then that one has such a stream of payments for one scenario. One could then apply a number of different ways of analyzing the yield and coming up with a computable yield measure.

The prevailing prepayment rate plays a key role in terms of any rational investment decision. (See Figure 7.) The

Figure 7

Key Role of Prepayment Rate

- Cash Flow Determination
  Both Short & Long
- Long Term Yield
- Yield Curve Placement
- Yield Spread
  Relationships

This affects the cash flow that is received over a short-term investment horizon as well as the residual cash flow that can be obtained from the continued long-term holding of the mortgage security. The prepayment pattern determines the long-term yield received by the investor. In addition, by playing a role in specifying the mortgage life, the prepayment pattern helps to determine an appropriate location along the yield curve for comparison with other securities, e.g., bonds with well-defined maturities. The resulting yield curve placement leads directly to an appropriate choice of benchmark issues to use in making yield spread comparisons against other sectors of the marketplace. Such yield spread comparisons are important for both short-term market perceptions as well as for the long-term relative value provided by the security.

One of the problems involved in the estimation of a prepayment pattern is the effect of changing rate levels on the prepayment process itself. Ideally, the investor would prefer to have a mortgage pool whose prepayment rate increased with higher interest rate levels so that a greater cash flow could be put to work in higher rate environments. Unfortunately, to the extent that the homeowner is influenced by the availability of refinancing at lower rates, the actual prepayment pattern will vary in just the opposite way. The historical evidence to date reveals some sensitivity to refinancing rates, housing cycle effects, etc. However, any historical evidence must be carefully reviewed in the new environment of 13% mortgage rates and with a whole new generation of interest-rate sensitive consumers.

The prepayment pattern affects the volatility risk of a mortgage pool in several important ways. Even if the standard "mortgage yield" is used to value the pool at the end of a given investment horizon, it will be the realized prepayments that determine how much resid-

this will in turn affect the market's perceptions of the security's remaining life. These perceptions could, in themselves, affect the security's market volatility.

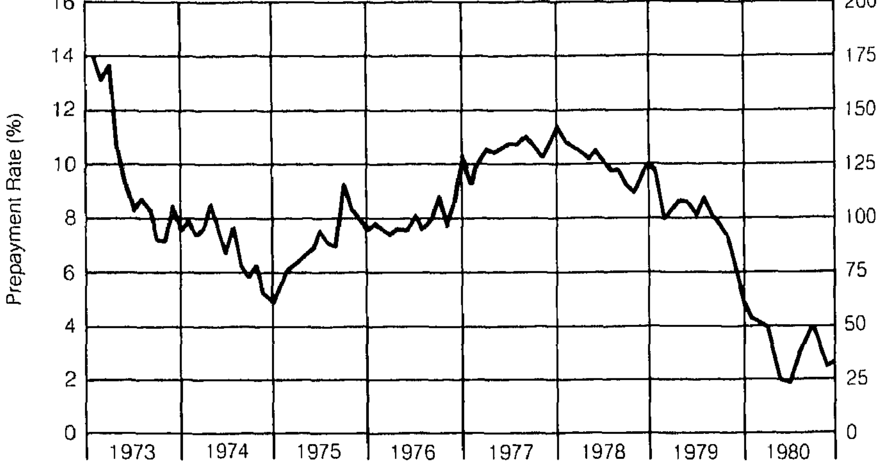
The standard mortgage yield and even the cash flow yield measures are based upon the assumption that all received payments may be reinvested at the initial yield rate. To the extent that available interest rates depart from this initial yield rate, the realized return will vary accordingly. This creates a certain reinvestment risk over any specified horizon. The magnitude of this reinvestment risk will, of course, depend upon the prepayment pattern, with higher levels of prepayments leading to more significant levels of risk.

The very uncertainty of the prepayment pattern creates a certain problem for the highly risk-averse universe of fixed-income portfolios. The fact that prepayments may depart greatly from any estimate creates a certain hesitation among investors who wish to at least count upon their cash flow (even if they cannot count on their realized return because of the reinvestment risk). To the extent that the prepayment patterns of a given class of mortgage pools appear to lack predictability even within a certain reasonable range, one may expect risk-averse investors to demand a correspondingly large yield premium.

Finally, at the end of an investment horizon, the value placed upon the remaining principal in a mortgage pool will depend upon the market's perception of the future prepayment process. Consequently, changing beliefs regarding this long-term prepayment process would have a significant effect on the short-term returns realized by an investor.

Figure 8 shows one of the simplest types of prepayment measures, the raw prepayment rates analyzed on GNMA 8s. Prepayment rates have experienced cyclical, seasonal and secular trends. We can see that this prepayment rate

Measures of Investment Value



There are many measures of investment value that can be applied to mortgage securities (Figure 9). The most basic is the simple mortgage yield-to-maturity. This is the yield rate for a single mortgage under the assumption of no prepayments, i.e., that the original schedule of principal payments will be observed until the final maturity date. Aside from the inclusion of regular principal payments in the cash flow, and from the common practice of basing this yield measure on the monthly compounding cycle that is consistent with the mortgage payment stream, this mortgage yield-to-maturity is similar in concept to the yield-to-maturity used in the bond market. What we would like to do, however, is achieve yield values that somehow reflect the estimated pattern of prepayments.

As we discussed earlier, market quotations on mortgage securities are usually based upon the yield to a standard average life, which is usually referred to as the quoted yield. For new GNMAs, the standard life is usually taken to be 12 years.

This concept essentially treats the mortgage security as if it had the cash flow shown earlier in Figure 5 with the lump-sum payment being made to coincide with the standard life.

This immediately suggests one way of reflecting various estimates of prepayment rates that may be greater or less than the statistical basis that led to the acceptance of the standard 12-year life. Thus, an investor may expect more rapid prepayments in a particular security and conclude that the average life would be closer to 8 years. He would then compute the yield to the 8-year average life and use this as a basis for measuring the investment value of this particular security.

However, any estimate of the prepayment rate will immediately give rise to a specific stream of associated payments over the entire life of the issue. In other words, once we seize upon any prepayment pattern, the mortgage security will have cash flows that would have the more complex characteristics shown in Figure 6 as opposed to the artificially simplistic "average life" model depicted by Figure 5. It is natural to develop a yield measure that recognizes these period-by-period flows resulting from the given prepayment assumption. This can be done by computing the "internal rate of return" for the mortgage payment stream given the specific prepayment assumption. This yield value is usually referred to as the "cash flow yield." It is an extension of the same present value techniques that underlie the traditional yield-to-maturity concept for bonds.

Figure 9

Measures of Investment Value

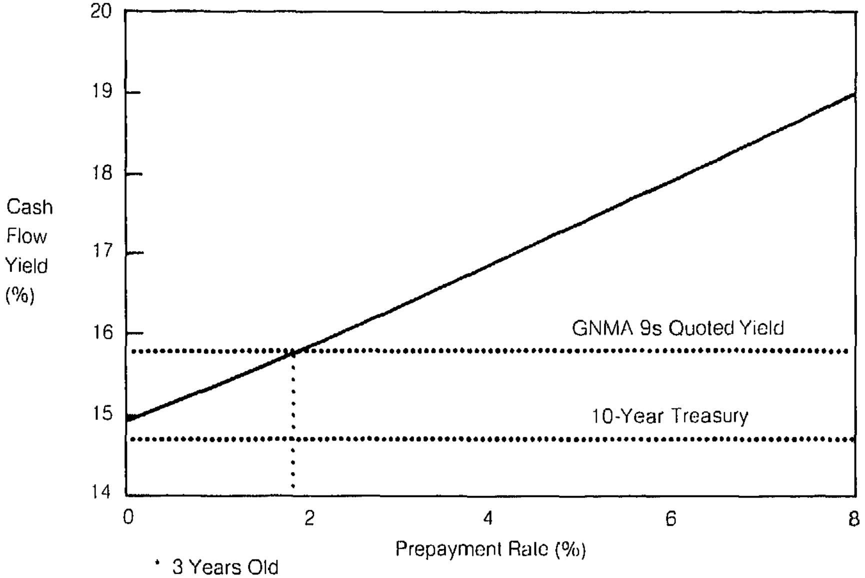
- *Yield to standard average life*
- *Yield to estimated average life*
- *Yield to other "life measures"*

In Figure 10, we show GNMA 9s at a 64⅜ price level, which occurred in 1981. The vertical axis is the cash flow yield for the prepayment rate specified on the horizontal axis. The quoted yield at this time was approximately 15.80%, which is depicted by the top dotted line. This roughly corresponds to the cash flow yield at a 2% prepayment rate.

The lower dotted line is the quoted yield on the 10-year Treasuries, approximately 14.70%. What would be the cash flow yield for the Treasury bond? Since Treasury bonds have fixed cash flows, without any dependence on prepayments, the cash flow yield is going to be constant. But, how would the bond's cash flow yield compare to the standard bond's yield-to-maturity?

This answer is that it is the same number. The cash flow yield is the exac analogue of the yield-to-maturity. When you have a defined stream of payments, such as with a 10-year Treasury bond, you're going to get the cash flow yield and the yield-to-maturity coinciding.

Cash Flow Yield for Various Prepayment Rates
GNMA 9s* @64 ⅜ 15.79%



* 3 Years Old

With the GNMA 9s, the situation is different. At this point, for a 1.9% prepayment rate, the quoted yield equals the cash flow yield. However, if one were to look at the case of zero prepayments, you would find that the GNMA 9s would have a cash flow yield of roughly 14.90%.

However, one can't get worse than a zero prepayment rate. This is a discount instrument, and these chips of capital gain are going to grow with higher prepayments. Higher prepayment rates will lead to higher cash flow yields. And the spread between the cash flow yield and the Treasury yield will get wider and wider.

Figure 11 relates these spread relationships to past history. The middle line is the quoted yield on GNMA 9s over the past 7½ years. The two other lines reflect the cash flow yields based upon prepayment rates of 2 and 4%. Until 1979, all of these figures were tracked very closely to one another. Obviously, in part, this was because the 9s did not levels rose irregularly higher, and the GNMA 9s went more and more to a discount price basis. This led to the prepayment rate having a greater and greater impact on the cash flow yields as evidenced in Figure 11. However, it is interesting to note that the quoted yield appeared to track very closely to the cash flow yield based upon a 2% prepayment rate. In contrast, the 4% prepayment rate led to cash flow yields which were far in excess of the quoted yield. This suggests that if there is a prospect of a resumption of prepayments with rates exceeding the historically modest level of 2%, the implied higher cash flow yield could result in a significantly higher spread against 10-year Treasuries. Of course, the prospect of such prepayment rates in excess of 2% must be assessed in the context of the higher interest rate environment that tends to suppress both refinancing as well as housing activity in general.

Another way of viewing the impact of prepayments is to examine the cross-

The dotted lines reflect the cash flow yield for these same GNMA vehicles using three different prepayment assumptions. A 6% prepayment assumption results in a cash flow yield in excess of 18% for 8% GNMAs. For higher coupon GNMAs, the price discount becomes less and less, and the cash flow yield resulting from the higher 6% prepayment rate naturally decreases until it crosses the quoted yield at around the 16½% current coupon level. The 4% prepayment assumption leads to a similar but more moderate decline from the lower coupon GNMAs. The interesting effect is to be found in the 2% prepayment curve. The cash flow yields for 2% prepayments track very closely to the quoted yield across the entire range of GNMA coupons. This almost suggests that at this price level, the quoted yield is equivalent to a 2% prepayment assumption.

The subject of returns over short-term investment horizons can be explored both from a historical and a prospective viewpoint. From the historical viewpoint, the primary problems are to determine the returns provided by various classes of mortgage pass-through securities, to understand the components of this return behavior, and to relate these returns to other sectors of the fixed-income market. In order to facilitate this analysis, Salomon Brothers developed the Mortgage Pass-Through Rate-of-Return Index. Figure 13 shows the summary of total rate-of-return results for the period from September 1974 to December 1981.

Taking a look at the GNMAs versus the long Treasuries, we can see that neither has been a wonderful investmen in terms of pure price performance ove this period. However, the good news fo mortgage investors is that GNMAs ha declined less than long Treasuries by about nine percentage points over this period of time. The better news is that the paydowns, even with the

Figure II

Time Chart of Yield Spreads GNMA 9s versus 10-Year Treasuries

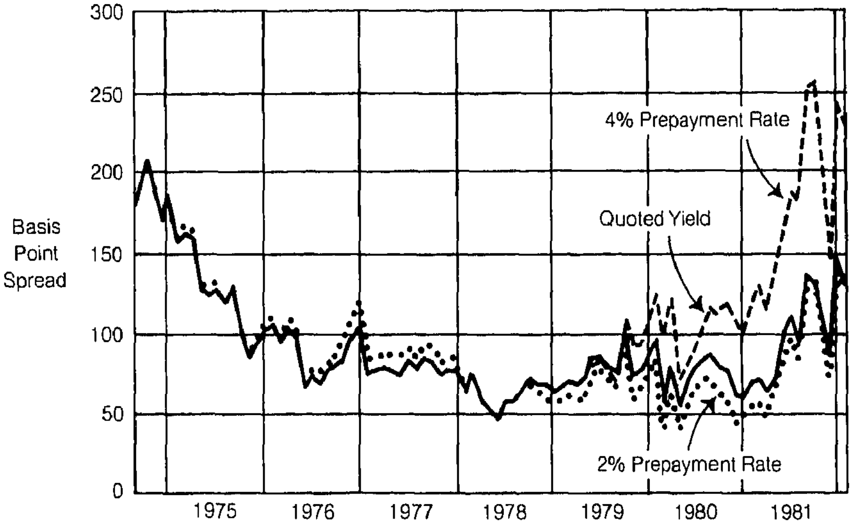
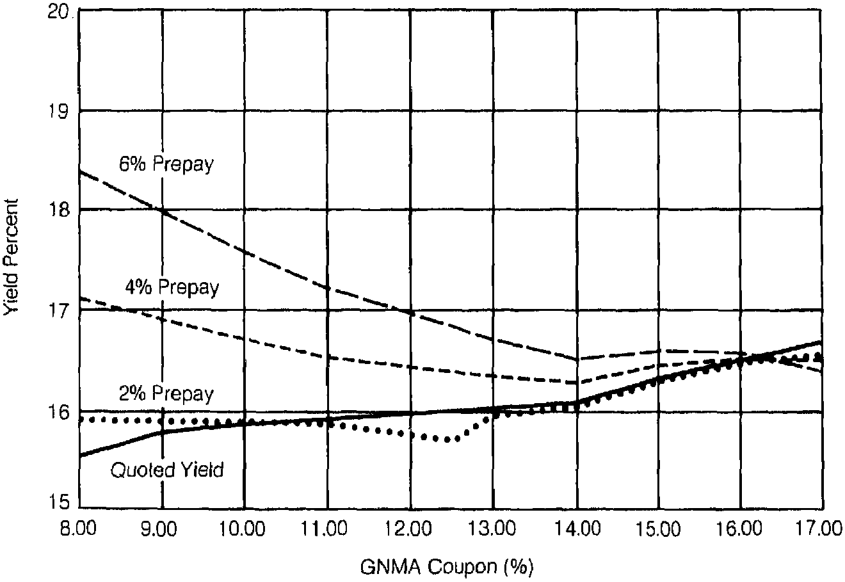


Figure 12

GNMA Market at Recent Price Levels Quoted Yields and Cash Flow Yields



on the total return of 14.7 points. Thus, the total of percent price move plus paydown return has led to the GNMAs having a 24% return advantage.

In terms of reinvested income, you have an important positive spread relationship over this period of time. As with most index analysis, our index reinvests income flows back into the index itself. That means that you've been taking that wonderfully higher interest income and prepayment income, and putting it right back to work in a declining market. Therefore, you've only gained a small advantage.

In terms of total return for this period, we show 53.9% for GNMAs versus 27% for long Treasuries.

In conclusion, we realistically know that this can't go on forever. There are some interesting things that will happen if interest rates go in different directions or if they just stabilize.

First, we must evaluate the volatility characteristics. If we have a rally, long Treasuries will outperform mortgage securities basis point for basis point.

There are two considerations with regard to paydown return. First of all, it is unlikely that prepayments will be as good as they have in the past. Secondly, if you have a rally so strong that what was once a discount bond quickly becomes a par or premium bond, the prepayments over time may turn against you. At the very least, this will moderate the positive returns.

Finally, we would like to be able to reinvest into an improving market, but much reinvestment is actually done into other types of instruments. There is some concern that, by having a high prepayment and high cash outflow in a roaring bull market, you will find yourself reinvesting at lower interest rates, which over the long term isn't very appealing.

It all sounds very complicated, but all these things can be addressed. With the

Figure 13

Summary of Total Rate-of-Return Results

September 1974 – December 1981
(7.3 Year Period)

	Percent Price Move	+	*Paydown Return*	=	*Principal Return*	+	*Reinvested Income*	=	*Total Return*
GNMA Pass-Throughs	-26.5		14.7		-11.8		65.8		53.9
Long Treasuries	-35.4				-35.4		62.4		27.0
Advantage of GNMAs	8.9		14.7		23.6		3.4		26.9

securities requires an understanding of specific levels of security. This means evaluating the risks inherent in mortgages as well as their pooled versions as mortgage passthrough securities or other more esoteric structures.

Safety in such investments is a theme with which any investor must be concerned. Generally, this means, some assurance that timely payment of principal and interest will be made by some third party issuer. As important, depending on the uniformity of the mortgage pool and the strength of the insurance, is a second element of the safety - that is, the liquidity. If one purchases a given investment, then a portion of the safety factor is one's ability to sell it at a future time, with a spread narrow enough that the investor is not taking an undue market risk.

Understanding the insurable types of risks, begins with the primary concern in mortgage loans; *credit risk*, or underwriting risk; the ability of the homeowner or mortgagor to keep with the required payments*. Standard and Poor's Corporation rating, currently the primary evaluator of mortgage backed securities defines credit risk in terms of both frequency and severity of loss. Careful underwriting should insure the ability of the mortgagor to keep up contractually with the payments and so not interrupt the timely payments. *Collateral risk*, which is also insurable, involves the types of properties included in the pool or backing the mortgage. Looking to the rating agencies, their definition of severity of loss involves not just types of properties - i.e., single family owner occupied - but also concentration factors. No more than a 5%** set percent within a given type of project or even a specific zip code or project classification. The *diversification* factor is a strength as well as a risk within mortgage-backed securities.

that are positive or strengths in a given security structure are also their greatest risks or weaknesses. Diversification as an example may be a strength as Standard & Poors requires wide diversification to obtain an investment-grade rating or substantial third party insurance, while at the same time, many investors require a specific concentration of properties to qualify for their investment needs.

On the *liquidity* side *maturity risk* is alleviated by the choice of mortgage-backed securities - short, intermediate, and long term fixed not to mention variable rate, and choices in payment structures. As money managers know, long securities tend to be more volatile in changing interest rate environments than short maturities. The flexibility in selection of payment structure and maturity of mortgage-backed securities is limited by a requirement for uniformity of mortgage product to insure liquidity. To provide a liquid security, a given maturity spectrum is usually backed by uniform pool of collateral. In short, maturity as a risk is a matter of investor choice. On the other side of the equation, there is the necessity of matching the investor's desired maturity range with the current range of homeowner's financing alternatives. This is the age old need for balance of lenders and borrowers.

Payment risk has to do with the timing and amount of payments and is both an insurable and a liquidity problem. Payment risk is generally viewed as a structural problem: how do you obtain the type of payment stream necessary to produce the desired term, maturity, and cash flow and yield? A graduated payment mortgage, as an example, has low actual cash return and some negative amortization or deferred interest buildup in the early portions of its payment structure. Traditional mortgage-backed securities are fully amortizing over their stated life. Other exceptions to the straight amortization mortgage or security are variable rate instruments, renegotiated rate instru-

phenomenon is another example of a strength of mortgage-backed securities existing also as a weakness. In rising interest rate environments while prepayments are apt to be slower than in declining rate environments, prepayments do occur, and the very nature of an amortizing instrument is a tremendous strength for its holder. With the amortization vehicle like a mortgage or a passthrough mortgage-backed security, the investor is getting back principal to reinvest at potentially higher interest rates. Because of prepayments this process is even more beneficial. The reverse, of course, is true and is a real *reinvestment* risk in declining interest rate environments. Here, of course, the mortgagors or home owners are apt to refinance at an ever increasing frequency as interest rates drop. The relationship is a dynamic one of decline of interest rates and increase of prepayments.* This means that the investor would be getting back larger amounts of principal to reinvest at possibly lower rates.

Another true liquidity risk is *sector* risk. Sector risk refers to the spread relationship between mortgage-backed securities and various benchmarks. e.g. the U.S. Treasury yield curve. This particular risk has narrowed somewhat with the introduction of choice of maturities in mortgage backed securities: short, intermediate, as well as the traditional long term, fixed rate market. This selection allows the investor to trade the maturity sectors within mortgage-backed securities as well as against other market sectors: corporates governments, etc. Of course, such trades are made depending on interest rate assumptions and in the framework of relative market strength. Spreads on GNMA's as an example have gone from as little as 50 basis points to as much as 300 basis points in yield above the benchmark 10-year or 30-year Treasury. Sector risk exists with all securities but the benchmark securities themselves.

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* These payments include interest and scheduled principal as well as taxes, insurance at a minimum.

** S&P requirement as of 8/1/83 for a "AA".

* See Helen F. Peters - "Prices & Yields on Mortgage-Backed Securities" - Mortgage Banker September, 1980

Guarantor risk of the Principal and Interest payments on mortgage-backed securities requires a decision between a AA or AAA issuer or an agency or full faith and credit guarantee.

Types of *insurance.* GNMA's are, of course, full faith and credit. FNMA's, as an agency guarantee, also provide a full faith and credit, but this time, not of the U.S. Treasury but of FNMA. FHLMC on the other hand, provides an assurance of timely payment of interest and ultimate repayment of principal on its own securities. In the rest of the conventional marketplace there are mortgage insurers who can create in both AA and AAA generally and provide comfortable levels of quality for investors.

The basic types of insurance for conventional mortgage pools comes in classification for pool insurance, special hazard (covering such events as earthquakes, wind storms, mudslides, etc.), and concentration insurance and payment advance. Each address a specific risk. As an example, potential economic demise of a single locale because of overconcentration within a given pool of loans would be covered by the concentration policy. A 25 or 30-day advance is also a key for an investor to be aware of. Twenty-five day advance means that if a payment is due on the first and not received by the 25th, then the insurer will forward the payment as required so that it is received by the investor on the 30th.

Trading risk requires assessment of volume in the marketplace of a given maturity, payment structure and quality issue. This risk can be summed up as fungibility or true liquidity risk, all of which is covered by the trading factor and pricing. For instance, the GNMA markets have their narrowest spreads in recent years due to a tremendous influx of new trading companies and increased demand for GNMAs by various classes of investors. However, this trend may be a cyclical phenomenon and spreads and premiums to treasuries may widen in the next three or four years, as the number of dealers contract or if inflation decreases the value of the long market or other securities gain favor.

Other forms of mortgage-backed securities have their own unique features and risks. Bonds are financing obligations of a given institution. They may have a mark to market requirements (market risk), and are generally issued by thrifts in the traditional 5-year bullet or 10-year bullet variety. Another soon to be created alternative is TIM's*, *Trust for Investment in Mortgages* which has some very interesting new possibilities in that reinvestment risk may be lessened and cash flows more disciplined through a TIM structure. *Pay-through bonds* are as the name indicates a pass-through constructed as a bond basically for the bookkeeping purposes of the issuer. *Participation certificates* provide sharing of risk by the issuer and the investor on a pro rata basis. Finally, there are *whole loan sales* which involve direct purchase of mortgage collateral by the investor and are generally uninsured investments.

Variations on the security side go on infinitely. There are builder bonds, which provides some call protection in its current unassailable quality in that the bonds are backed by GNMA's. These are also providing an interesting benefit in that prepayments are used to pay off unit holders at par on a request or priority basis. The Collateral Mortgage Obligations which are structured as debt of the issuer offer classes of securities which accept prepayments in a prioritized order.

Mortgage Backed Securities are the first phase of quality investments backed by pools of assets as contrasted with straight corporate or government debentures. Understanding the potential risks and strengths of mortgages and their securitized form is important in establishing their proper position in the capital markets.

7/20/83

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*Authorizing legislation is before committee as of 7/1/83 it involves objective reporting of facts rather than trying to build a convincing case on a flimsy framework. The significant mortgage securities are currently substantially more liquid than corporate bonds, somewhat more liquid than most U.S. government agency issuess, and very close to U.S. Treasury notes and bonds.

There are six elements of liquidity:

- Total volume of securities outstanding
- Flow of new issue volume
- Level of secondary trading activity
- Number of tradable issues in a security class
- Ease of handling the securities operationally
- Perceived degree of safety of security class

I'll discuss some of these points in more detail, but would first like to trace some history. The first Government National Mortgage Association pass-through (GNMA or Ginnie Mae) was issued in 1970. In spite of the U.S. Treasury guarantee, virtually all the early GNMA's were sold to thrift institutions for their ***mortgage*** portfolios. It was a workout market, with spreads of more than a point and as much as two. Price/Yield action often ran counter to the Treasury market because the supply-demand equation was driven by the need for mortgages, and not bonds. In the early days, and today, there are two very significant educational hurdles that limit the speed at which new investors enter the market:

(1) *The accounting discipline*

(a) Instead of remaining constant for the life of the bond, the principal dollars decrease, every month, in an irregular fashion.
(b) There are twelve payments a year, instead of two.

has a different balance of the principal and interest components.

(2) *The yield discipline*

(a) Debt buyers are used to maturity, call provisions and sinking funds, all of which allow for a reasonable degree of predictability. With mortgage securities, the standard thirty year maturity pass-through is priced to a twelve year average life (of a mortgage), which is a trading convention, and a fair historical measurement, but the variation can be substantial, depending on the underlying mortgage rates and the economic or interest rate cycle.

(b) The reinvestment consideration is of paramount importance. It can be as much as 40% of the total return, in comparison with something in the order of 50% for other debt securities.

The GNMA market began to broaden in the mid 70's, partly due to increased new issue volume and partly because yield became so attractive for a U.S. Treasury guarantee that pension funds, banks and insurance companies were unable to resist them.

Let me address new issue flow, because it is the single most important element of liquidity. The slowest period in the last several years saw more than $1 billion a month in new issues. In the late spring of 1983, we are seeing a flood in excess of $6 billion a month. The bulk of new issues come to the market in $1 million to $5 million pieces, which results in so many transactions that there is a steady focus on the product from the beginning to the end of the trading day. Quotes, bids and offerings are being piped over squawk boxes continuously. This kind of concentration may only be paralleled in the debt market with the Treasury ten-year and the long bond.

The new issue flow is concentrated in a single GNMA coupon, based on an administered government mortgage rate

market forces. The importance attached to new issue flow is the primary reason why current coupon FNMA's and Freddie Mac's trade virtually as well as the GNMA's (8/32 quotes, with many trades taking place well inside the quotes). When you consider, for example, that the FNMA program is less than two years old, versus 13 for GNMA, and when you consider that the FNMA new issue volume through public offerings and mortgage bankers routine production has generated less than 10% of the volume GNMA has (25% if you include swap programs), then having almost equivalent liquidity is an intriguing phenomenon.

On two recent occasions, A.G. Becker had shorted $50 million current coupon FNMA's to satisfy our investors' buying demand. We would not hesitate to do the same with Freddie Mac's because we're comfortable with our ability to temporarily hedge the position, and then to find the bonds to cover the short.

I'd like to comment on secondary market activity in mortgage securities. There are probably a couple of dozen New York "dealers," and a host of regionals. The demarcation line is between those that have a serious position taking commitment and the others who generally find both sides of a trade and then act as principal. You are currently talking about four or possibly five position takers.

Between the large volume of mortgages packaged and sold by distressed thrifts, and the surge of new mortgage originations as a result of falling rates, the activity in the last year has caused a predictable event that I call the "Running of the Bulls." Brokerage and banking firms of every size that have not been players in this market are trying to get in on the action. We've witnessed this before, and can expect the competition to result in even tighter spreads. We've seen spreads in the past as tight as 2½ 32nds on average. Considering transactions size and cost of clearing, this is too tight. Therefore, the number of participants in the market will thin out again in the next year or two.

Each of the three basic mortgage securities has an important, positive development in its program. GNMA has created the GNMA II, parallel to the existing security, but with a Central Paying Agent, which means that investors will receive a single check monthly, instead of one for each security they hold. GNMA II also provides for the creation of "jumbo pools," desirable for their broader diversification.

Hopefully, in 1984, a book-entry system will be in place, eliminating the need to physically move registered securities around for every transaction. FNMA has held the first of a new series of public offerings. It is anticipated that it will be followed by $200 to $400 million every four to six weeks for at least several months. Freddie Mac has recently completed the initial offering of a new security form, which allowed three separate maturities to be created from a single pool of single family mortgages. This $1 billion issue was the largest mortgage securities offering ever. More of the same should follow. All of these changes will result in even greater liquidity for the various securities.

The key to the overwhelming success of the three basic programs is uniformity. A single, best-compromise form was arrived at, and volume was pumped through that form. There has been a tendency in this business, especially with government programs, to attempt to specifically satisfy all needs, by allowing many forms. This has proven disastrous. The FHA graduated payment mortgage could have succeeded earlier, but there were five forms to choose from. Originators, traders, salesmen and investors were confused. The markets eventually chose a single form. The more unfortunate story is the that of adjustable and variable ignored the question of uniformity, with the result that there were, I believe, in excess of one hundred variations on the theme. Although there are now some attempts being made at standardization, the very large population of existing loans have poor to no liquidity. Aside from the difficulties involved in structuring a security, you must remember that, on average, salesmen in the securities business do not have an unslakeable thirst for the more complex. And unless the salesmen sits down and learns about it, the investor will never hear about it.

Most of this discussion has centered around current coupons, but in the last two years there has been substantial volume and liquidity in the discounts. The first reason is an interest rate environment that resulted in an 800 to 900 basis point spread between the highest and lowest tradable coupons, combined with a volatile market. Swapping opportunities appeared on an unprecedented basis. Secondly, Freddie Mac and FNMA have expedited the creation of a huge volume of discount conventional mortgage securities created from the portfolios of troubled thrifts. This has created substantial swap activity between the three security classes, as well as between high and low coupons in each class.

For the year beginning July 1, 1983, I anticipate that securities created from new single family loan originations will total between $35 billion and $50 billion, in the absence of substantially higher rates. Existing single family loans not in security form approach $1 trillion. Although we have passed the height of the frenzy in rushing these loans to market, they will continue to be securitized. As rates have dropped, non-government programs are proliferating, and the key is standardization, allowing rapid building of volume for liquidity. This process currently involves obtaining a couple of insurance policies from a private mortgage insurance company, and a Standard and Poor's rating. A sion funds or fund managers. Several transactions have taken place in the secondary market since then.

I want to make some brief comments on the liquidity of several other instruments. In the government sector, the GNMA Graduated Payment, Mobile Home, and 15 year maturity securities are all active. With substantially less volume than the standard GNMA, they still trade better than corporate issues. I would suggest participating in them to the extent that the new issue volume holds up. In the private sector, we're on the verge of a volume of securities backed by commercial and industrial loans, and others backed by consumer and commercial receivables. The prime reason for delays is the time necessary to get through the rating agencies. The raters are slow and meticulous, which is good, because liquidity is in part a function of faith in the accuracy of the rating. A further complication has been the hiring away of rating agency analysts by investment bankers. The mortgage business is sufficiently complex that the training process for replacements is very slow. The last security I'll mention is that backed by FHA apartment project mortgages, either in the form of a private pass-through, or more recently, the GNMA framework. Substantial volume should continue for more than a year as the government periodically auctions off loans purchased under subsidy programs.

For a variety of reasons, virtually all mortgage securities created to date have been sold domestically. There is a great deal of work being done today to expand distribution to the world markets, specifically Europe, the Far East, and the Middle East. There is reason to believe that the problems in this expansion are all solveable, and that an important new measure of liquidity will be added to the market in the next two to five years.

the secondary market. With the increased flexibility resulting from ERISA class exemptions, many of the servicing and potential prohibited transaction problems have been removed. As the articles in this section indicate, once suitable servicing arrangements are made, there is little to prevent pension funds from obtaining the higher yields available through direct investing.

Public funds and multi-employer funds have been the major investors in whole loans among pension funds. There have been a variety of reasons for their investments. Multiemployer funds are motivated to provide support for housing activities which provide employment for their members. Public funds function in a universe of pressures which move them to invest in ways that simultaneously perform identifiable social services. However, they also require predictable cash flows, which large mortgage portfolios provide, and security, which collateralized, insured and guaranteed mortgages provide. Large portfolios of whole loans possess many of the same characteristics as mortgage pools. As two contributing pension fund managers indicate in the next section, problems. In fact, sizable portions of many funds' entire portfolios have been devoted to direct investment in mortgages to the noticeable advantage of the funds. Private funds in general have not yet made wide use of this option. However, changes in technology and servicing capabilities will probably make investment in whole loans a more attractive route for a larger universe of funds.

Two articles are presented here, one on investing in single family mortgages, the other on multifamily project mortgages. The two types of investments tend to be treated much differently, and have substantially different characteristics which fit varied investment plans. Because more commercial considerations enter into multifamily projects, they require special treatment.

finance over the past 15 years. By making mortgages look - and potentially act - like bonds, a wider investor audience has been attracted, bringing benefits to borrowers, originators and investors. The phenomenon is so well entrenched that any change in the process is highly unlikely to occur in the foreseeable future. Frankly, insofar as inducing pension funds and other non-traditionals to invest in mortgages is concerned, securitization makes the most sense and affords the best vehicle. It is with some reservation, therefore, that I have accepted this challenge of advocating the circumvention of mortgage securities by direct investment in their underlying collateral (whole loans). Yet, upon investigation, the concept may not prove to be so farfetched.

Mortgage securities enjoy a number of benefits over whole loans in varying degrees. The elimination of individual loan underwriting in favor of "pool" protection or third-party guaranty is one. Liquidity is another. Broader exemption from some of the more onerous aspects of ERISA is still another reason to favor a security form. Why then my temerity in arguing in behalf of direct investment? For the purposes of this article, let's restrict the rationale to two single and powerful motives: **YIELD** and **TAILORING.**

Yield Considerations. . . .

The benefits of safety, access, liquidity, and regulatory relief quickly fade when investment goes beyond the confines of "conforming" mortgage backed security types - GNMA, FNMA and FHLMC. This

which will likely include legal fees, underwriters' discounts, printing expenses, rating agency charges, trustee fees and special pool/hazard insurance, severely impact the issuer and force a compression in yield spreads in order for non - "conforming" securities to be economically feasible. Thus, these latter types are discouraged as the harsh realities of this set of circumstances cause originators/issuers and investors to eschew most of the alternatives to the standard, GNMA/FNMA/FHLMC, plain vanilla. Yet, some significant investment bargains can be obtained from the situation.

Over the recent past, the spreads between "conforming" type mortgage securities, using GNMA as the benchmark, have ranged between:[1]

GNMA Current Coupons Mortgage Yield. . . . Baseline
FHLMC PC. . . . -14 to +14 (Avg. +2) basis points over GNMA
FNMA MBS. . . . - 6 to +25 (Avg. +13) basis points over GNMA

These yields need to be compared to those generally available with high quality, whole loans. . . +25 to +75 basis points over GNMA without consideration for potential enhancements through fee income. Thus, direct investment provides a yield pick-up which might only otherwise be available in the bond market by dropping down in investment grade from AAA to BAA. Yet, this can be accomplished with collateral that will qualify, in most cases, for AA rating equivalence.

and mortgage servicers. However, be it a result of inertia or lack of exposure, this has not occurred to any great degree in the non-traditional market place. That's unfortunate, for the above is only an opening gambit. Even greater yield benefits can be made available to the more sophisticated player. For one example, the extension of a purchase commitment to fit the mortgage origination cycle will generally bring with it higher yields and fees. For another, the careful structuring of a specialized mortgage commitment - e.g., condominium loans, second liens, non-owner occupants, etc. - can result in higher yields without necessarily sacrificing the investment grade of the collateral. Assuming the foregoing has whet the readers' appetite, let's explore more reasons to consider direct investment in mortgage instruments.

Tailoring Considerations

Rivaling securitization as the past decade's significant mortgage development has to be the proliferation of alternative mortgage instruments (AMIs). Capital market disequilibria, historically high interest rates, and unprecedented volatility nearly destroyed those financial intermediaries who primarily service the nation's housing markets. In order to survive, a host of new products have been introduced which attempt to shift the interest rate risk to the borrower while, at the same time, providing affordable payment terms. The result is added opportunity for those investors willing to expend the effort to look over and evaluate the plethora of mortgage alphabet soup that has become available. Since the AMI explosion is relatively recent, centers of gravity have yet to form and mortgage securities made up of these instruments are still rare. Therefore, participation in this market is effectively accomplished primarily through direct investment.

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[1] It needs to be emphasized that the analysis is quite simplistic, using mortgage yields on current coupon securities. Single Monthly Mortability and other qualitative considerations (e.g. - pay-through dates, corporate bond equivalencies, etc.) need to be made in order to properly evaluate the relationships between inter- and intra-market spreads.

Looking at the vast majority of new mortgage instruments typically reveals either adjustable rates or shorter terms. All indications point to the latter as being more attractive to pension funds. In fact, many funds already are indirect investors in balloon mortgages (those with longer amortization schedules vs. shorter maturity dates) through their participation in the Guaranteed Investment Contracts of major life insurance companies. Direct investment could increase those investment returns. In addition, the tailoring of the mortgage and loan commitment can provide a greater degree of personalization to the needs of a specific investor. This might include the targeting of specific, preferred geographic areas or, alternatively, diversification to assure a wider spread of risk. Other tailoring examples might include innovation in the form of inflation indexed loans or those with equity participation. The tailoring possibilities are only limited by the boundaries of one's imagination, properly tempered by investment prudence. In that regard, even imaginative concepts can often be made more risk averse by the introduction of mortgage insurance. Furthermore, while on the surface it would appear that tailored investments in whole loans need to be locked away in the vault forever because of their presumed, inherent lack of both liquidity and marketability, this may not prove to be the actual case. An active secondary market in whole loans exists and major transactions are often arranged by the same investment bankers who one would normally think restrict their activities to security placements.

It is to be hoped that the foregoing has provided sufficient rationale to justify the examination of direct investment alternatives to mortgage securities. By working with astute originators and advisors, investment returns can be enhanced at the same time that risks are kept within reasonable bounds and excessive administrative detail for non-traditional investors is reduced through well conceived servicing contracts.

In an article that appeared in the October 1978 issue of *Mortgage Banker* magazine, I praised the GNMA project loan auctions for attracting new yield conscious investors in multifamily mortgages. Since then, there has been an explosion in the volume of production and sales made possible by many more revolutionary marketing methods. This article reviews the dynamic market developments that are affecting sales and that should, I believe, continue throughout 1983.

The market has demonstrated a remarkable appetite for multifamily insured paper in several forms. HUD estimates that more than $38 billion of multifamily insurance is in force. Our latest estimate is included as Exhibit 1, which does not cover an additional 10 percent in HUD-held loans. This is an astounding increase from $22.2 billion on September 30, 1975.

Exhibit 1

FHA Multifamily Insurance Estimated Outstanding 1/1/83

Section of Act	*Face Amount* ($ Billion)
General Risk Fund	
207	1.7
220	1.3
221	17.4
223(f)	1.4
231	.9
232	1.5
241	.7
242	2.3
608	.5
803	2.0
Misc.	.2
Total GRF	29.9
Special Risk Fund	
223(e)	.9
236	6.3
Total GRF	7.2
Cooperative Insurance	
213	.9
Total Multifamily	38.0

In the taxable area, GNMA auctions have sold almost $12 billion since 1977 ***despite*** the highest interest rate period in our history. Even more surprising, the tax-exempt sector has absorbed $16.8 billion since 1975 (some non-insured), with a peak year in 1982 of more than $3 billion. In addition, GNMA has guaranteed more than $2.8 billion of multifamily certificates, most of it in the past four years. We have seen the multifamily market almost double in seven years, and 1983 may be the biggest year ever.

New Instruments

One reason for the increased capacity is the number of new instruments created by Wall Street. In the taxable area, we now have $4 billion of mortgage-backed pass-through certificates. Unlike mortgage documents, these are easy to transfer and readily divisible into separate investments. Best of all, they can be held by investors who are not FHA approved mortgagees. These factors have greatly increased the number of investors, especially to include new, aggressive pension fund managers.

In the non-taxable area, the strong bond financing has included more than $3 billion of 11(b) multifamily financing. Notwithstanding the gradual deterioration in the ratio of tax-exempt rates to taxable rates, the quality of insured multifamily issues has made this financing a major factor in the market including both state housing agency issues and individual loan issues.

mance in these auctions sets the industry standard for transfer documents. In addition, the $3 billion per year of offerings have kept the market constantly active, developing a secondary market and producing an industry awareness of the yield trends.

The Secondary Market

The secondary market is also very large now, with several firms making constant buy/sell quotes for $10 million and up. Old pools are constantly quoted and traded. This active market has enabled several large thrift institutions and insurance companies to sell several hundred million dollars of old loans. Mort-

John D. Reilly is president and chief executive officer of Reilly Mortgage Group, Inc., Washington, D.C., a position he assumed in March seasoned loans, and Wall Street firms marketed $50 million-plus portfolios with no more difficulty than we formerly encountered when selling one loan of one-tenth the size.

Computers have also increased liquidity in the secondary market. After a brief input of payment data, our computer screen displays 77 combinations of price and yield. The screen shows 11 prices and seven assumptions for time-to-loan payoffs that may be at par, assignment, or debenture value.

The computer instantly analyzes yield and displays the answers based on time from settlement and time from commencement of amortization. Any loan with cash or debenture insurance, with or without the 20-year "put" option, can be instantly reviewed for a variety of assumptions and marketed in today's highly liquid market. (See Exhibit 2.)

Prior to the GNMA auctions and other public offerings, the characteristics of individual loans were known only to one mortgagee and investor. Today, active multifamily participants maintain large data banks that include loan histories of most insured projects and collective actuarial statistics. Each GNMA auction is subjected to multiple regression analysis, and computers have moved to replace human memories of both investor and mortgagor behavior. This area of sophistication will be the focus for the next several years.

Life Expectancy Changes

Just as the single-family GNMA pools have greatly changed that prepayment expectation, the multifamily loans have undergone severe shocks. Not only has the multifamily loan faced the deceleration of payoffs due to the attractiveness of old, low rates in today's market, but also HUD

Recent HUD actuarial data confirm longer life expectations than were reflected in the Frazier and Stamper companion article in the October 1978 *Mortgage Banker.** But recent history aside, the big question for real estate analysts concerns future expectations, as affected by issues such as the "Boston Five" Case, rent control, defaults, and concentration of servicing.

The "Boston Five" Case

HUD has permitted an owner to convert the ownership of an insured project from Section 207 rental to a cooperative without paying off the Section 207 loan. In response, the Boston Five Cents Savings Bank sued HUD. (The Mortgage Bankers Association and several large institutional investors have filed *amicus* briefs urging the court to rule in favor of the bank).

The case is scheduled for trial in 1983, and, pending resolution of the case, HUD has approved only a few additional conversions, each with full indemnification by developers. If this case is decided in favor of HUD, many loans, especially in metropolitan areas where coops are accepted, will experience a longer life.

This case comes just as the initial Section 23 Tandem loans are becoming ready for conversion. Average loan amounts in 1976 were $15,000 to $25,000 per unit. Averages today are double that, reflecting the approximately 12 percent annual inflation over the six-year period. If interest rates continue to decline, the modest rate of conversions we have experienced would accelerate. The early Tandem loans will be converting to condominiums soon, unless the Boston Five case diverts these conversions to coop.

If inflation were to stabilize at 7 percent, the next doubling of cost would take 10 years. Current tax law and the increasing apartment rentals have shortened the period during which the owners receive tax benefits. That period is now about 10 years. If it were not for other factors, investors could reasonably predict much shorter lines today for nonsubsidized loans than the standard 18 years for subsidized apartment loans.

The greatest damage from the Boston Five case might be to the HUD General Insurance Fund. More than $23 billion of 221 loans have an option for the investor to exchange the loans for current rate debentures from HUD. If rates are very low by today's standard, the investor keeps the loan. But if rates are high, HUD would incur years of negative spread from the swap. Because the General Insurance Fund is already over $3 billion in debt, this exchange could be very damaging.

Rent Control

Accurate analysis of rent control depends on all of the locational factors that affect individual economic appraisals, but, assuming the national average experience we see in our servicing portfolio, a project reaches the maximum cash flow allowed by HUD in about the seventh year.

The economic aggravation of lost profit to the owner due to HUD rent control tended to increase voluntary prepayments in the years following the seventh. HUD has published its intention to revoke this rent control ceiling. If revoked, this will also increase the average life of HUD loans.

Exhibit 2

Reilly Mortgage Group Yield Analysis

1. Origination Date:	Aug. 1, 1978	9. Remaining Term, in Mos.:	429
2. Date of First Amortization:	Aug. 1, 1978	10. Monthly Payment (P&I):	$31,551.94
3. Date of Final Payment:	Jul. 1, 2017	11A. Baseline Price:	$3,207,202.29
4. Original Loan Balance:	5,077,300.00	11B. Baseline Price, as Percent of Par:	64.625%
5. Contract Interest Rate:	7.000%	13. Payoff Price, as Percent of Par:	99.000%
6. Original Term, in Mos.:	480	14. Project/Loan Number:	452-44188
7. Offering Date:	Nov. 15, 1982	15. Project Name:	Bolton North
8. Remaining Loan Balance:	$4,962,788.85	16. Annual Servicing Fee:	0.10000000000%

Holding Period in Months – From Offering Date

Price	*Percent of Par*	*60*	*120*	*144*	*180*	*215*	*240*	*MAT*
$3,145,167.43	63.38%	18.14%	13.85%	13.19%	12.58%	12.22%	12.05%	11.71%
$3,157,574.41	63.63%	18.04%	13.78%	13.13%	12.52%	12.17%	12.00%	11.66%
$3,169,981.38	63.88%	17.93%	13.72%	13.07%	12.47%	12.12%	11.95%	11.61%
$3,182,388.35	64.13%	17.83%	13.66%	13.01%	12.41%	12.06%	11.90%	11.56%
$3,194,795.35	64.38%	17.73%	13.59%	12.95%	12.36%	12.01%	11.85%	11.52%
$3,207,202.29	64.63%	17.63%	13.53%	12.89%	12.30%	11.96%	11.80%	11.47%
$3,219,609.27	64.88%	17.53%	13.46%	12.84%	12.25%	11.91%	11.75%	11.42%
$3,232,016.24	65.13%	17.43%	13.40%	12.78%	12.20%	11.86%	11.70%	11.37%
$3,244,423.21	65.38%	17.33%	13.34%	12.72%	12.15%	11.81%	11.65%	11.33%
$3,256,830.18	65.63%	17.23%	13.28%	12.66%	12.09%	11.76%	11.61%	11.28%
$3,269,237.15	65.88%	17.13%	13.21%	12.61%	12.04%	11.71%	11.56%	11.23%
		4776479.89	4512363.61	4378056.47	4137945.70	3850994.80	3607161.41	0.00
Months From First Amortization		111	171	195	231	166	291	480

Multifamily claims in fiscal year 1982 were lower than in any year since 1978. With high unemployment and interest rates, you might expect the reverse. However, our servicing portfolio has some of its lowest delinquency rates in the hardest-hit areas of high unemployment in the country. At least part of this is explained by the lack of overbuilding in those areas.

Some of the credit also goes to HUD for its judicious use of Loan Management Section 8 subsidy to prevent defaults. HUD also deserves praise for Section 8's being a full subsidy, less prone to default than Section 236; and HUD is increasing Section 8 subsidies in lieu of rent supplements in Section 236 projects. Since 1975, the HUD-held portfolio has increased only 50 percent, while insurance has doubled.

Concentration of servicing

There are almost 1,000 mortgagees servicing HUD multifamily loans. Twenty-six mortgagees service more than 100 loans each; these 26 service 63 percent of all HUD loans. The five largest in this group service 43 percent of all HUD loans. This concentration has produced an expertise in both multifamily problems and sophisticated reporting techniques. Such expertise not only assists troubled projects individually, but also has helped HUD's efforts collectively.

During 1981, HUD began a demonstration contract in Region III (Philadelphia) to measure the effect that private industry could have on the servicing of loans assigned back to HUD. Obviously pleased with the results, HUD is now in the process of awarding a contract for the remainder of the $3.8 billion of troubled loans. Depending on HUD policies, we estimate that one-third to one-half of these loans could be made current and eligible for resale into the secondary market. This supply will be constantly augmented by assignments due to claims (over $100 million in 1982) and assignments due to the 20-year "put" option. The "put" volume could amount to several billion dollars by 1990.

The expertise of the mortgage industry will bring additional loans in HUD's portfolio to a current status. Anticipating this, HUD has increased the schedule of loan sales from two in fiscal year 1982 to five in fiscal year 1983. A further increase in sales volume is likely. In addition, HUD disposition methods can include the sale of the direct loan portfolio (i.e., not insured) that is held by HUD.

For example, 700 projects totalling over $2 billion of Section 8 assisted elderly housing are currently completed. There is a similar amount under construction. These and other loans could be liquidated with the same dramatic effect that a GNMA auction has - a reduction in government deficit and borrowing.

The last four years have brought:

- Expanded multifamily insurance in force
- New investment instruments creating a readily liquid market;
- Large absorption of both taxable and tax-exempt mortgage investments;
- Sophisticated analytical techniques with data banks of loan information;
- Regulatory change dramatically affecting voluntary mortgage prepayments; and
- Decline in the default ratio.

Most important, the past four years have resulted in the production of quality housing for Americans of all income levels. Insured housing is produced in a complicated chain, involving Congress, HUD, builders, mortgage bankers, investors, and Wall Street. Over the past few years, all secondary market participants have done their part toward achieving the national goal of decent housing for everyone.

Introduction

This section documents the activities which gave rise to this publication, the conferences and working sessions. It reproduces, in abbreviated fashion, the tenor of the discussions, the give and take of the contrasting views of the housing industry and the pension fund managers. There is also a taste of the controversies reigning among pension fund managers themselves over the issues raised in the meetings.

The initial offerings are summaries of the conferences and work sessions held in 1982-1983, made soon after the events and indicating the nature of the controversies surrounding the growth and changes in the mortgage market. In addition, a workbook which was used in the intensive working sessions to inform and direct the participants, is included intact. The workbook is provided, not just to chronicle the efforts, but because many of the questions it asks remain unanswered and subject to the still changing activities in the mortgage finance field. In addition, there is in the workbook a distillation of worthwhile information on the proliferating instruments of housing finance, ARMs, SAMs, GEMs, GPMs, balloon mortgages and many others.

Currently activity in the mortgage markets is moving toward the revival of the "plain vanilla" 30 year fixed payment mortgage. The preference for fixed rate loans appears to extend even to shorter terms. The volume of 15 year fixed rate mortgages has also shown an increase. Through August, 1983 GNMA was doing approximately $250 million per month in 15 year loans. Yet even in a period of low inflation and strong economic growth, the interest rate environment has not yet settled down. On August 10, 1983, the Wall Street Journal could suggest that growing equity type mortgages, which appeared to be losing steam as mortg interest rates fell to 12 percent, might p up as the nation's borrowing needs increased and investors began to look toward shorter term commitments.

What the working documents will ma clear is that the recent period of intere rate volatility inspired the mortgage in try and the secondary market to a new found flexibility. Some new instrument will probably wither in more stable time But others will remain both as standar elements of the market and as safety valves for any future volatility in inflati interest rates. Familiarity with both the flexible capacity of the mortgage mar and with the range of instruments ava able to it, their advantages and defect bound to help the investor.

The hundreds of pension fund managers we worked with, who in their ow ways have contributed to this volume, represented here by five active partici pants in our conferences and work se sions. A unique part of this publicatio and of the overall effort, is this reactio pension fund managers themselves, t the secondary market, to the regulato changes, to the changes in mortgage instruments and mortgage-backed se ties. The contributing pension fund ma agers represent a range of types of fu and a wide range of opinion on mortg investments. Yet every view provided with significant help in meeting the demands of the investment market. It always clear that the strong and varie reactions of managers were reflection the fact that mortgage-backed investments were sound, high yielding and could be fit into fund strategies.

This document has been prepared for you with two purposes in mind. First, it is intended to be a reference source to help guide you through the often confusing array of mortgage instruments available today. Second, it will be the workbook for our meeting in Washington, D.C. on August 26, 1982.

We have attempted to present a summary of the characteristics of many of the

they are packaged. There are also general discussions of various important aspects of mortgage investments such as yield, liquidity, cash flow, and risk.

Many of the types of mortgages described are quite new and represent the major effort being made by mortgage originators to bridge the gap between the borrower and you the investor. You will see that these mortgages fit into three maturity

these mortgages can be packaged into one or more of the investment vehicles described in Section 1, so you have a very large choice of mortgage investment opportunities.

Please note the questions at the end of each section. We intend to address these questions at our meeting and encourage you to pose others which we have not included.

Section One

Investment Vehicles

Mortgages can be "packaged" in a number of different ways which enable investors to invest either directly, or indirectly, in real estate related loans.

Whole Loans

Mortgages can be purchased outright either singly or, more likely, in groups. In this instance, the investor owns the "whole" loan and holds all the underlying documentation. The investor must have the expertise to underwrite the loans and either service the mortgage himself-collecting the monthly payments, handling escrows and the like - or arrange to have servicing done by another entity for a fee. (The fee is generally ⅜ to ½ percent of the mortgage amount, on an annual basis, and is reflected as part of the mortgage yield.) Relatively few investors who are not real estate specialists choose to purchase whole mortgages.

Participations

One step removed from the purchase of whole mortgages is the purchase of a participation, or interest, in a pool of loans. Here, the investor has a direct investment in mortgages - but document holding and servicing are handled by the originator of the loan pool. As in the case of whole loans, however, the investor would still need to be concerned with the characteristics and quality of each loan in the pool, but, in the participation investment

Mortgage-Backed Securites

These instruments provide a more indirect investment vehicle and avoid the necessity for the investor to become involved in documentation, servicing or individual loan characteristics.

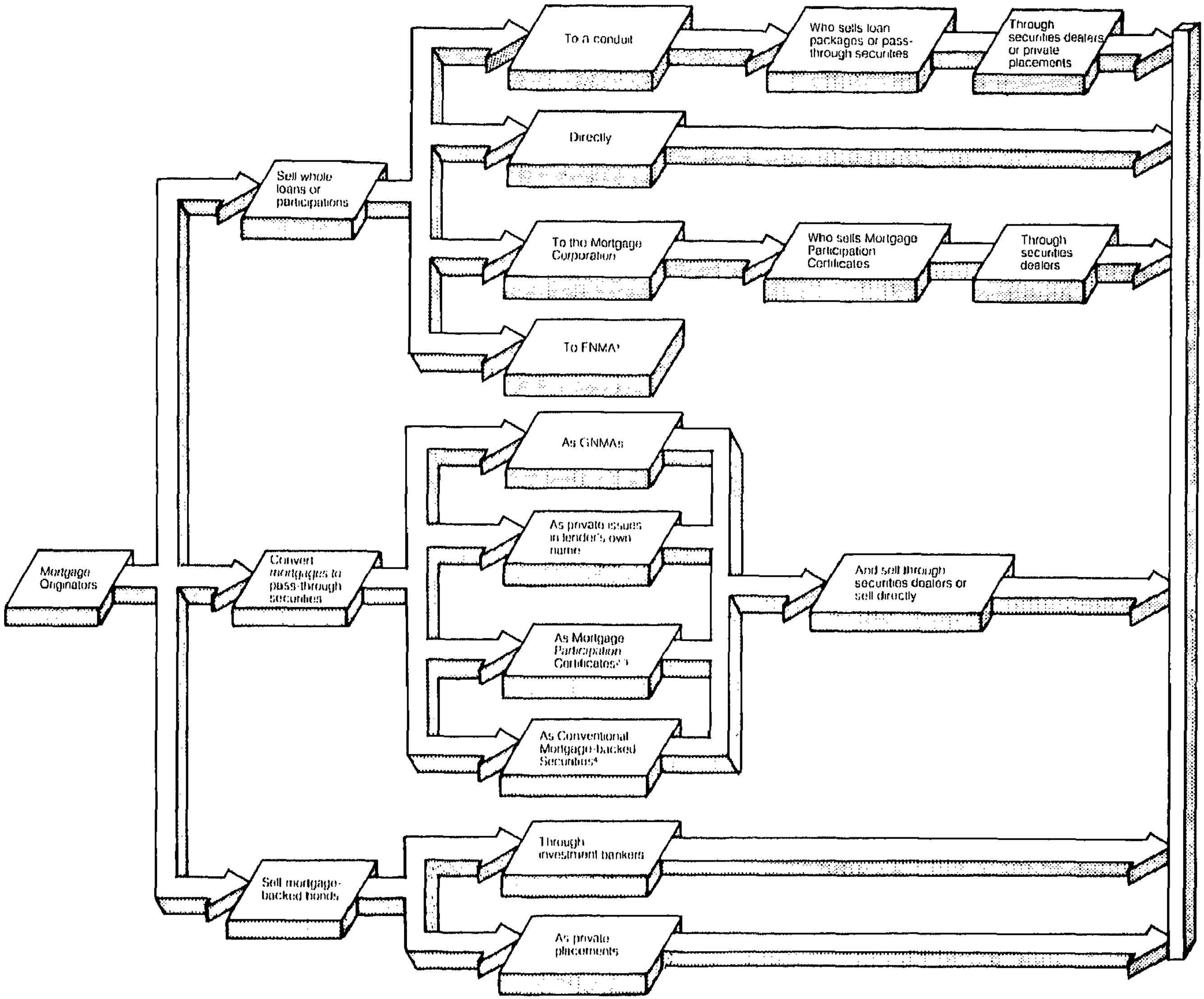
Mortgage-backed securities represent undivided interests in the pool of underlying mortgages on which the monthly principal and interest payments are passed through to the investor.

Securities may be single issuer - that is, backed by pools originated by a single lender - or they may be of the jumbo variety - backed by pools originated by various lenders, on properties in different geographical areas and with somewhat mixed loan characteristics. Single issuer type securities can be readily tailored for the public pension seeking, for instance, to invest in its state. Jumbo pools can be customized to include a mix of loans which can be expected to provide relatively reliable cash flow performance, for example.

The most prevalent types of securities are:

- Government National Mortgage Association guaranteed securities (Ginnie Maes) backed by FHA-insured and VA-guaranteed mortgages. These carry the full faith and credit of the U.S. government and guarantee full and timely payment of principal and interest on the underlying mortgages.

The Secondary Market Process


Mortgage Originators
Sell whole loans or participations
To a conduit
Who sells loan packages or pass-through securities
Through securities dealers or private placements
Directly
To the Mortgage Corporation
Who sells Mortgage Participation Certificates
Through securities dealers
To FNMA[1]
Convert mortgages to pass-through securities
As GNMAs
As private issues in lender's own name
As Mortgage Participation Certificates[2,3]
As Conventional Mortgage-backed Securities[4]
And sell through securities dealers or sell directly
Sell mortgage-backed bonds
Through investment bankers
As private placements

Definitions of terms on the diagram: (Descriptions of processes are contained on the following pages.)

Mortgage Originators include savings and loan associations, commercial banks, mortgage companies, mutual savings banks, credit unions, and others.

A Conduit is an organization which buys mortgages and packages them to sell to other investors. This operation can be performed by any type of institution; conduits, however, are predominantly MICs and investment bankers.

Investors include thrift institutions, banks for their

Dealers are investment bankers.

GNMAs are pass-through securities guaranteed by the Government National Mortgage Association and representing ownership of FHA and VA loans.

PCs are pass-through securities guaranteed by the Mortgage Corporation and representing undivided interests in conventional mortgages.

[1] *FNMA holds most loans it purchases in portfolio.*

[2] A lender may hold a pass-through security in portfolio as an asset or sell it to an investor.

[3] The Mortgage Corporation's Guarantor Program began October 1981. The corporation buys the loans from the lender and gives the lender PCs in exchange for the mortgages. In later phases of the program the corporation may simply guarantee the lender's securities without actually buying the loans from the lender.

[4] FNMA began operation of a conventional pass-through security program in December 1981.

Loan Mortgage Corporation, a part of the Federal Home Loan Bank System. These "agency status" certificates are backed by conventional loans and are guaranteed by FHLMC as to full and timely payment of interest and ultimate full payment of principal.

- Mortgage-backed securities issued and guaranteed by the Federal National Mortgage Association, a congressionally chartered, shareholder-owned corporation (NYSE). FNMA guarantees these "agency status" securities as to full and timely payment of both interest and principal.

- Conduit-issued securities which are generally issued and insured by private mortgage insurance companies. The insurance on these pools usually covers the top five percent of the pool amount.

- Private issuer securities issued and backed through over collateralization, private mortgage insurance or self-insurance, by the lender which originated the underlying pool loans.

Mortgage-Backed Bonds

Unlike the other types of mortgage "packages," these instruments are debt issues, which are collateralized by residential

tional bonds, with semi-annual interest payment and principal recapture at maturity. These issues are usually highly over-collateralized by relatively low rate loans and are rated.

Another type of debt issue which is collateralized by residential mortgages is the pay-through bond, on which the cash flow from the collateral mortgages services the debt. Offered primarily by development firms, or their financial subsidiaries, this type of bond is used most frequently to fund new originations. They are less over-collateralized than the more traditional type of mortgage-backed bond, but are also rated.

Questions

- What are the yield trade-offs in comparing different securities mechanisms?

- Is the ease of investment provided by some of these packaging mechanisms, i.e. mortgage-backed securities, worth some tradeoff in yield requirements?

- To what extent, if any, are investors interested in direct investment in mortgages, i.e. participations and whole loans?

Section Two

Different Mortgages for Different Maturities

Short Term

Several of today's mortgages offer investors the equivalent of short term investments through the periodic adjustment of interest rate or principal amount to reflect changed market conditions. Others actually have short term maturities.

Adjustable Rate of Return

Investors seeking periodic rate readjustments will recognize the ***adjustable rate***

of the investor's choice. The most common adjustment periods are every six months or every 1, 2, 3, 5 years.

The most popular indexes are the Federal Home Loan Bank Board's (FHLBB) Index of Closed Loan Rates and various Treasury obligation or constant maturity rates. Characteristically, the FHLBB index lags mortgage market rates on the way up-as well as on the way down. By contrast, 3 or 6 month Treasury bill rates, for instance, most often track market trends in traditional non-mortgage securities as well as movements in the business cycle

Another suggested, but as yet unused, index for ARMs is the intermediate corporate "AA" bond rate. By adjusting the rate of the underlying loan over this index every three or five years, a compatible measurement for mortgage debt could be obtained, since mortgage investments are typically priced on a 12-year expected life basis. From the consumers' point of view, the relatively long 3 to 5 year adjustment periods would provide a degree of payment stability.

Among the variations on the basic ARM concept is the ***renegotiable rate mortgage***, on which the rate and payments are adjusted every three or five years to "market," without being tied to any specific index.

Another variation provides for fixed monthly payments for two- to three-years while the interest rate is adjusted semiannually. At each interest rate adjustment, the allocation of the payment is reapportioned; if the payment is insufficient to cover interest, the unpaid interest is added to principal.

A variation which has proven very popular with borrowers is the ***combination of a graduated payment feature with the ARM.*** In this arrangement, monthly payments start lower than they would normally and are increased each year of the first adjustment period. The difference between the actual and normal payments is added to principal. The lower starting payments make the mortgage more affordable.

Investors in pass-throughs secured by ARMs can look for:

- Periodic rate adjustments at specified periods which protect investors against adverse market movements.

- High yields, since the mortgages will always have a built in "margin" over the index.

- Relatively predictable prepayments since consumers will have no need to re-

Principal Adjusted Mortgage

Some investors' goals prescribe the need for a long term, inflation-protected annuity for pensioners. This may be coupled with the desire to provide below-market payment rates for consumers and fund members. Conventional pass-through securities backed by the ***adjustable balance mortgage (ABM)*** or "real return" mortgage plan are tailored to meet these criteria.

With an ABM, the consumer pays his mortgage at a fixed, below-market rate. However, the loan's rate of interest accrual fluctuates every six months by a predetermined number of basis points over inflation, as measured by the CPI. If the accrual rate is higher than the paying rate, unpaid accrued interest will be added to the original principal balance.

At six-month intervals, the homeowner's payment is recalculated to ensure amortization of the new balance - which may include capitalized interest - over the remaining term at the fixed-payment rate. Therefore, balloon payments are not necessary with the ABM plan. Regardless of fluctuations in the consumer's payment, *the investor receives a cash flow adjusted* for inflation, guaranteeing repayment of his original investment.

The real return ABM plan is not presently available in all states, because of its potential for capitalization of interest. For investors in eligible states this plan offers:

- Real return for inflation for a full, specified term.

- Protection against early payoff because:

1. The consumer's payments are significantly below market and are adjusted to reflect the fluctuations of inflation in the market.

2. The homeowner's payments may be lowered as inflation subsides. (This also eliminates some of the problems of rein-

loan.

- The opportunity to provide consumers with affordable mortgage payments, which may help ensure a continuing stream of product for investment.

Balloon Mortgages

For those investors seeking a near term pay back, rather than short term adjustment in principal or yield, ***balloon loans*** offer the optimum mortgage investment.

These mortgages are generally about five years in term and can provide for partial principal plus interest or only interest payment during the term. The loan balance is due in full (balloons) at maturity. Balloons have been more common for second mortgages, i.e. junior liens, but over the last year or two have become increasingly prevalent first mortgage instruments as well.

These instruments provide investors:

- Higher yields than corporate securities of the same maturity. In particular, second mortgages generally command a higher yield than first mortgages.

- Cash flows are very predictable: there is generally little or no recapture during the term, with full recapture at maturity.

Intermediate Term

Mortgage instruments which provide investors intermediate payoff fall into four general categories: those which are fixed rate, level paying; those which provide for accelerated principal recapture; seasoned, longer maturity loans; and mortgage-backed bonds.

Fixed-Rate, Level Paying

Loans in this category may be either fully amortizing or balloon and generally have 10 or 15 year maturities.

another intermediate term investment opportunity. These fixed rate fully amort ing loans are pooled for GNMA securiti GNMA is also planning to guarantee securities backed by 15 year fully amor ing first mortgages on traditional homes

Rapid Principal Recapture

Some investor strategies are distinguish by the need to recapture principal on ar accelerated schedule. Mortgages variously known as growing equity, rapid payoff, equity builder and early ownersh mortgages may satisfy this goal.

These loans are originated at fixed interest rates, with first year payments based on a long term (25 or 30 year) amortization schedule. However, month payments at the beginning of each successive year are increased by a predetermined amount - 2 to 7½ percent annually. The full amount of the paymer increase is applied to principal repayme so that, depending on the percentage o annual increase, the loan is fully paid in between nine and 15 years.

Rapid principal recapture loans may combined with a graduated payment mechanism to reduce the consumer's mortgage payments early in the loan. Li the GEM it graduates payments, but like the GPM it has negative amortization in the early years. When relatively higher market rates prevail, this combination would provide an affordable loan plan fo many homeowners.

These loans packaged into a mortgage-backed security are attractive to investors for a number of reasons:

- Accelerated principal recapture (due t increasing payments) permits the reinvestment of an increasing cash flow ir other investments or into additional securities backed by similar loans. Because consumer equity builds quickl through rapid amortization and normal appreciation, homeowners may be induced to "trade-up" their dwellings f ment period lowers the consumer's payment to a more manageable level than market rates would normally permit.)

- The maximum possible term of the investment is limited to an intermediate range, versus the relatively longer terms of most other fixed rate investments.

Seasoned Loans

For some investment objectives the ***seasoned standard fixed-rate mortgage*** purchased at a deep discount is an attractive base for a pass-through investment. The cash flow from these mortgage vehicles is relatively constant, and principal prepayments tend to be slow because of the lower interest rates on the underlying mortgages.

Level-payment, fixed-rate mortgages are beneficial to investors who typically purchase intermediate term bonds, particularly if the loans are purchased at a discount from existing lender portfolios.

Seasoned loans help support investment strategies calling for:

- Yields that are competitive with such alternative investments as corporate AA's 10-year Treasury bills.

- Moderate protection against early payoff. In today's volatile high-rate market, many consumers cherish their standard low-rate, fixed-payment loans, so that prepayments have fallen off from historical levels. Most investors, however, purchase deeply discounted paper in the expectation of quicker prepayment. Increased enforcement of due-on-sale clauses, at least partly due to the Supreme Court's recent ruling sustaining Federal savings and loans' enforcement ability, should increase prepayments in the future.

Longer Term

Long term investment opportunities in

Investors who traditionally invest in bonds will find the ***standard fixed-rate, fixed-term mortgage*** to be an attractive investment option. Unlike many of the newer loan types, these mortgages feature a more constant cash flow and a longer term of 25 to 30 years. Forty-year project loans also afford the investor long term investment opportunities.

No extraordinary payment plans or yield adjustments are built into standard mortgages, but in some cases, borrowers' initial interest payments are supplemented by a third party through a "buy-down."

Prepayments of standard loans tend to be low when mortgage rates rise and remain above the fixed rate. When rates fall and stay below the investment rate, prepayments usually increase.

Fixed-rate, fixed-term mortgages are attractive to consumers seeking security and stability and whose incomes are sufficient to afford the higher payments necessitated by the premium most lenders and investors demand in exchange for locking in long term rates.

Higher-Than-Market Yield

Investors who seek exceptionally high returns with minimal risk can support their goals by securing a pass-through instrument with insured second-home or resort condominium unit loans. Second-home mortgages usually pay down more rapidly than loans on primary residences because they involve higher rates and more frequent property turnover.

Second-home/resort condominium loans are attractive to investors for these reasons:

- Second-home mortgages command above-market yields.

- Substantial mortgage guaranty insurance - available up to 100 percent coverage - assures investment safety.

- The accelerated turnover associated

Mortgage Product Comparison

Channel Participant	Borrower		Investor	
Product	Likes	Dislikes	Likes	Dislikes
Standard Fixed Rate	• Level monthly payment • Fully amortizing	• Difficulty in qualifying for loan in high interest rate environment (i.e., affordability)	• Yield • Quality of loan • Low credit risk • Historical experience • Liquidity/marketability • Standardization	• No call protection • Lack of market sensitivity • Inconsistent liquidity of coupons • Prepayment behavior-increases with declining rates, decreases with rising rates
Adjustable Rate				
1. Without Negative Amortization	• Possible decline in monthly payments	• Uncertain monthly payments • Possible increase in monthly payments, payment shocks (i.e., affordability of increases)	• Upward market rate sensitivity • Principal protection	• No call protection • Potential credit risk is high • Yield uncertainty • Limited history/experience • Limited marketability/liquidity • No standardization • Downward rate sensitivity • Prepayment behavior-increases with declining rates, decreases with rising rates
2. With Negative Amortization	• Longer period of stable payments	• Uncertain monthly payments • Possible increase in monthly payments, payment shocks (i.e., affordability of increases) • Possible decline of equity • Tax disadvantages of capitalized interest	• Principal protection • General upward market rate sensitivity	• Accounting complexity and cost • General downward rate sensitivity • Potential for premium pricing • No call protection • Potential credit risk is high • Yield uncertainty • Limited history/experience • Limited marketability/liquidity • No standardization • Accounting complexity and cost • Prepayment behavior-increases with declining rates, decreases with rising rates • Tax treatment of capitalized interest

Mortgage Production Comparison

Channel Participant	**Borrower**		**Investor**	
Product	Likes	Dislikes	Likes	Dislikes
Graduated Payment Mortgage	● Reduced initial monthly payments (i.e., affordability) ● Certain monthly payments ● Fully amortizing	● Yield premium over fixed rate ● Payments level out above comparable coupon fixed rate ● Increasing payments, payment shock	● Low credit risk ● Some history/experience ● Some marketability liquidity	● No call protection ● Prepayment behavior-increases with declining rates, decreases with rising rates ● Accounting complexity and cost ● Tax treatment of capitalized interest
Shared Appreciation Mortgage	● Level monthly payment ● Low level of monthly payment (i.e., affordability)	● Uncertain determination of appreciation ● Potential forced sale or refinancing	● Low credit risk ● Inflation protection in equity share ● Potential intermediate maturity	● No call protection ● Division of appreciation cumbersome ● Prepayment behavior-increases with declining rates, decreases with rising rates ● Limited history/experience ● Limited marketability/liquidity ● Uncertain assessment as to trade-off between mortgage yield and appreciation return
Price Level Adjusted Mortgage	● Potential decline in monthly payments ● Potentially lower initial contract rate than 30 year fixed rate (i.e., affordability)	● Uncertain monthly payment ● Potential increase in monthly payment	● Principal protection ● Real rate of return provided (i.e., inflation immune)	● No call protection ● Prepayment behavior-increases with declining rates, decreases with rising rates ● Limited history/experience ● Limited marketability/liquidity ● Tax treatment of increasing capital has not been evaluated

Channel Participant	Borrower		Investor	
Product	Likes	Dislikes	Likes	Dislik
Balloon	• Level monthly payment	• Refinancing risks • Marginal principal reduction	• Maturity - intermediate term	• No call protecti • Potential credit high • Limited history/ experience • Limited marketa liquidity • No standardizat • Prepayment be increases with dec rates, decreases v rising rates
Growing Equity Mortgage				
1. With Index	• Lower contract rate than 30 year, fixed rate (i.e., easier to qualify for loan)	• Uncertain monthly payments • Possible increase in monthly payments, payment shocks • Tax disadvantages of rapid principal reduction	• Maturity - intermediate term • Original issue discount, call protection • Perceived low credit risk	• Limited history/ experience • Limited marketa liquidity • No standardizat • Accounting con and cost • Prepayment be increases with dec rates, decreases v rising rates
2. With Fixed Increases	• Lower contract rate than 30 year, fixed rate • Certain monthly payments • Fully amortizing	• Increase in monthly payments, payment shocks • Tax disadvantages of rapid principal reduction	• Maturity - intermediate term • Original issue discount, call protection • Perceived low credit risk • Known underlying cash flow schedule	• Limited history/ experience • Limited marketa liquidity • No standardizat • Prepayment be increases with dec rates, decreases v rising rates
Second Trust	• Level monthly payment • Fully amortizing • Flexibility in use of funds		• Maturity - intermediate term • Low credit risk • Standardization, except maturity	• No call protectio • Prepayment be increases with dec rates, decreases v rising rates • Limited history/ experience • Limited marketa liquidity

- Is it true that today's availability of mortgage instruments in all maturity ranges makes mortgage-related investment as a whole more attractive?

- What are the major determinants of maturity requirements over time and at any particular time?

ers' affordability concerns by reducing initial monthly payments through negative amortization or third party interest supplements (buydowns) acceptable?

- To what extent does the ability to foster social benefits without a sacrifice in yield serve as an added attraction for investment?

- How important is call protection?

Section Three

Transactions

Mortgage Purchase Transaction Considerations

The mortgage purchase transaction can take many different forms which may have vastly differing appeal to pension fund managers. The transaction might call for either optional or mandatory delivery of the mortgage product; delivery could be "immediate" or for some time in the future; and the dollar volume of the transaction could range from $50 thousand to $50 million. Different lenders and different investors have greatly varied needs and capacities when it comes to the multitude of transaction considerations.

Mandatory Versus Optional Delivery

Mortgage loans and related securities can be delivered under a mandatory commitment, which requires that the lender deliver the mortgage product. Such commitments frequently allow a five or 10 percent variance in the dollar amount of mortgages delivered. Mortgages can also be delivered under optional delivery commitments. These typically permit but do not require delivery in full or in part at any time during the commitment period. These optional delivery commitments command higher front end fees.

Commitments may also be structured to contain features of both optional and mandatory delivery. For example, a six month forward delivery contract might allow optional delivery during the first four months of the contract, and then convert to mandatory delivery within two months of expiration.

Immediate Versus Forward Delivery

Mortgage loans can be delivered under an "immediate" delivery commitment, which typically calls for delivery within 30 or 60 days. Alternately, delivery can be done on a "forward" basis, which would typically require delivery within a four, six, eight, or 12 month period. The yield on forward deliveries may be fixed at the outset or may depend on market conditions at the time of delivery.

Questions

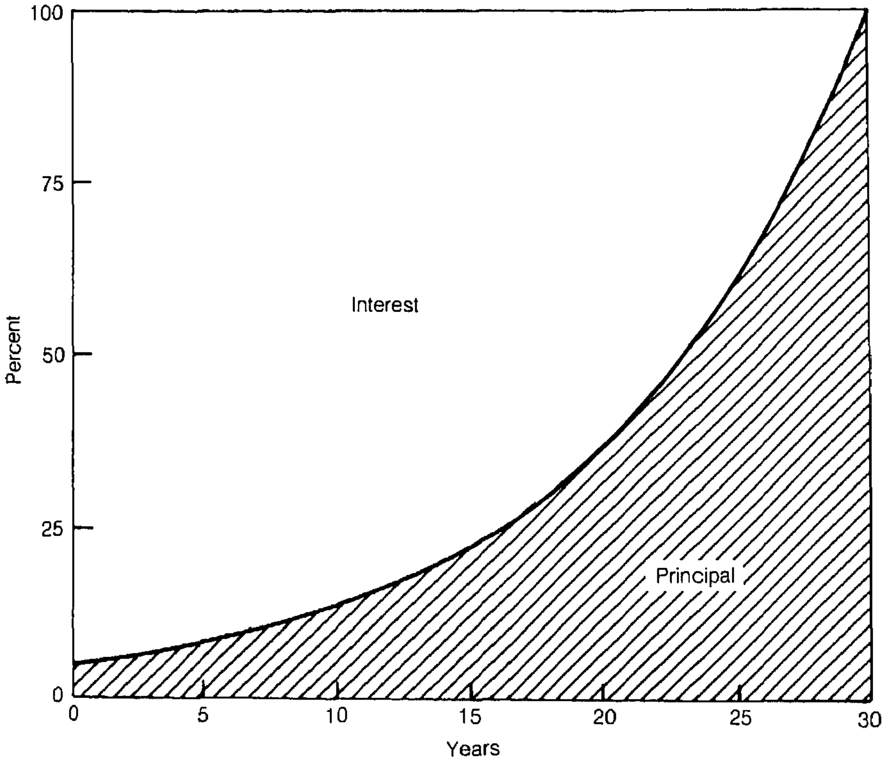
- Are optional delivery commitments workable for pension funds? Under what conditions?

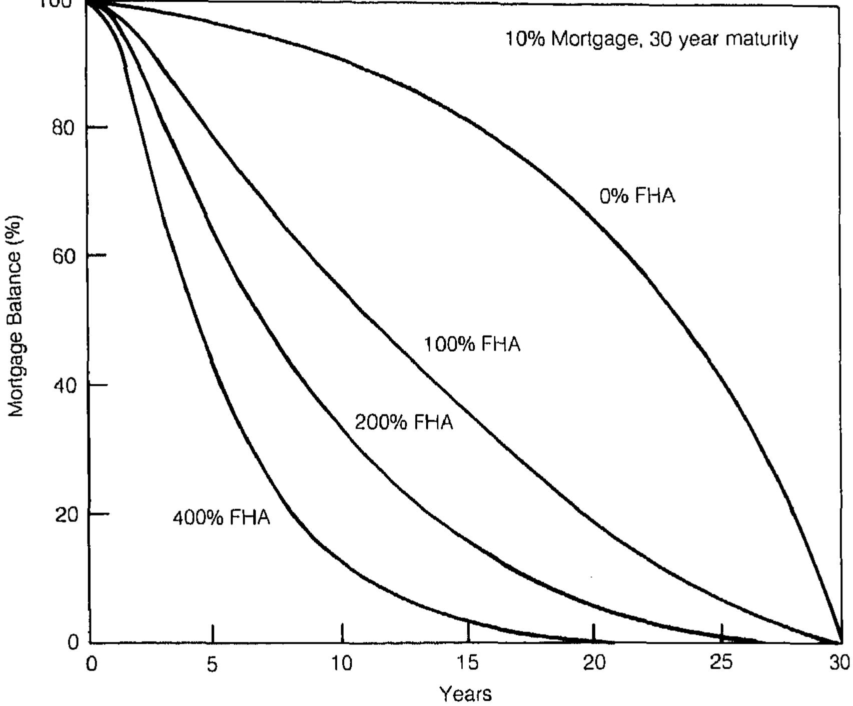
- What commitment period(s) and minimum offer amounts are most desirable?

The following charts provide comparisons at a glance.

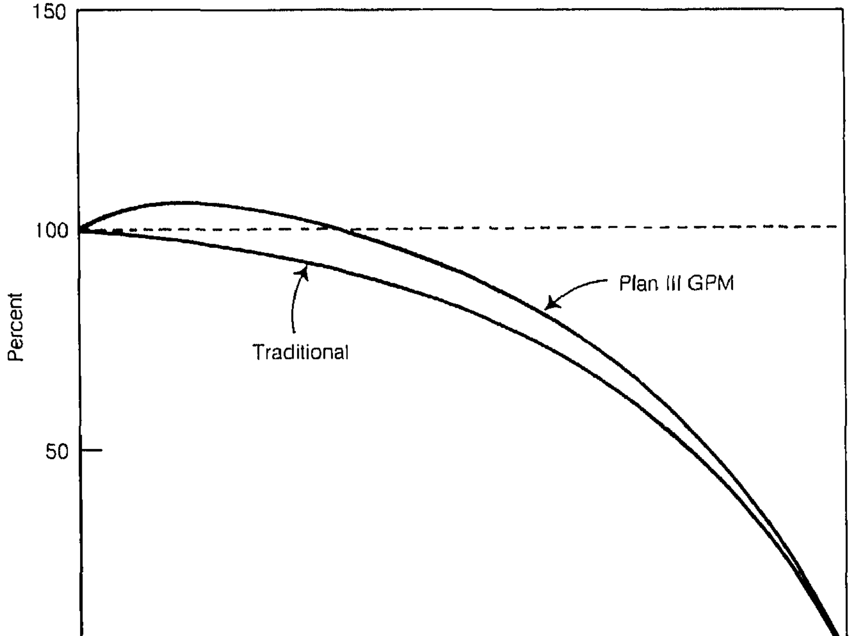
Monthly Mortgage Payments

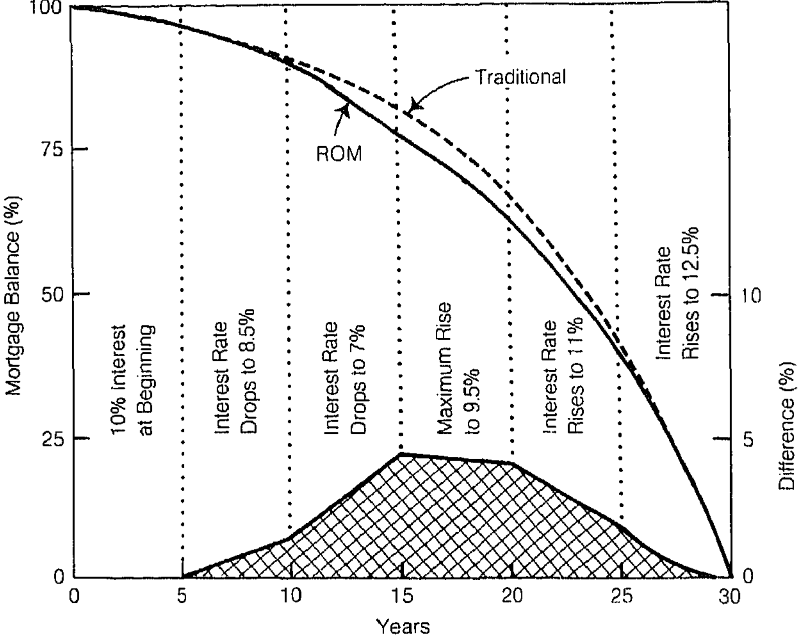
30 Year 10% Conventional Loan





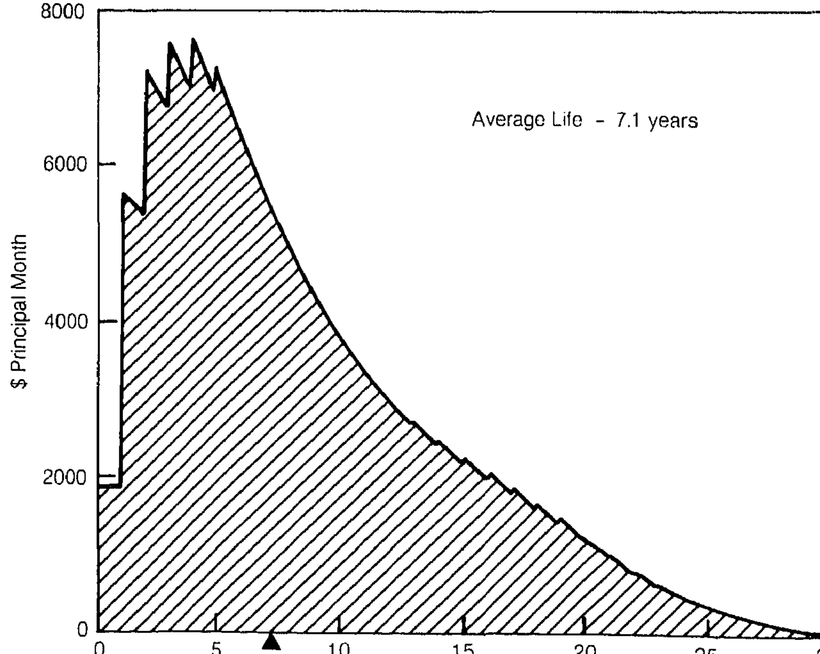
Comparison Between Plan III GPM and a Traditional Mortgage

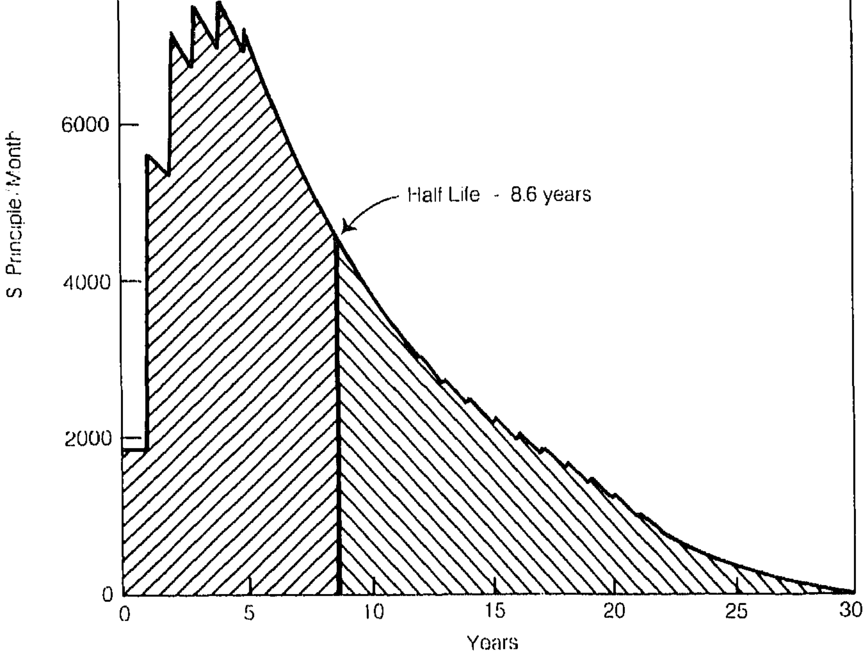




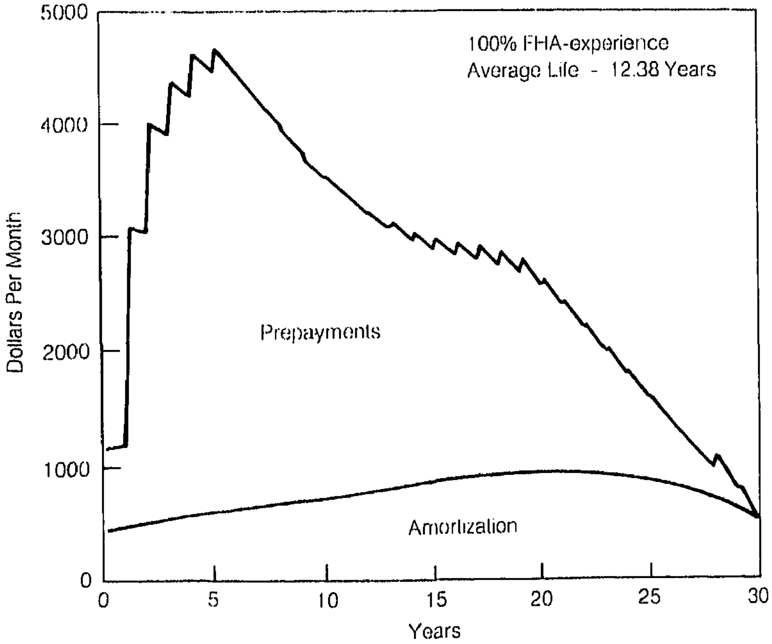
Average Life of a $1 Million GNMA Security

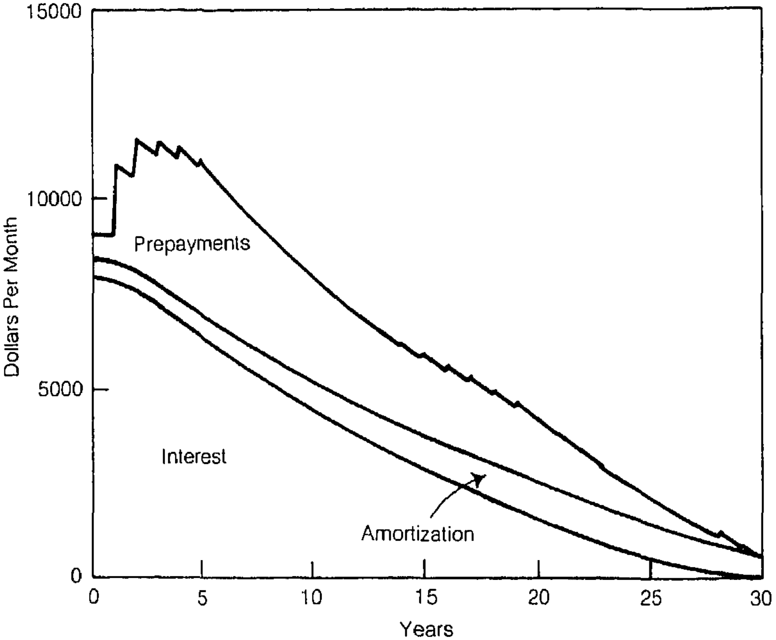
200% FHA-experience assumed



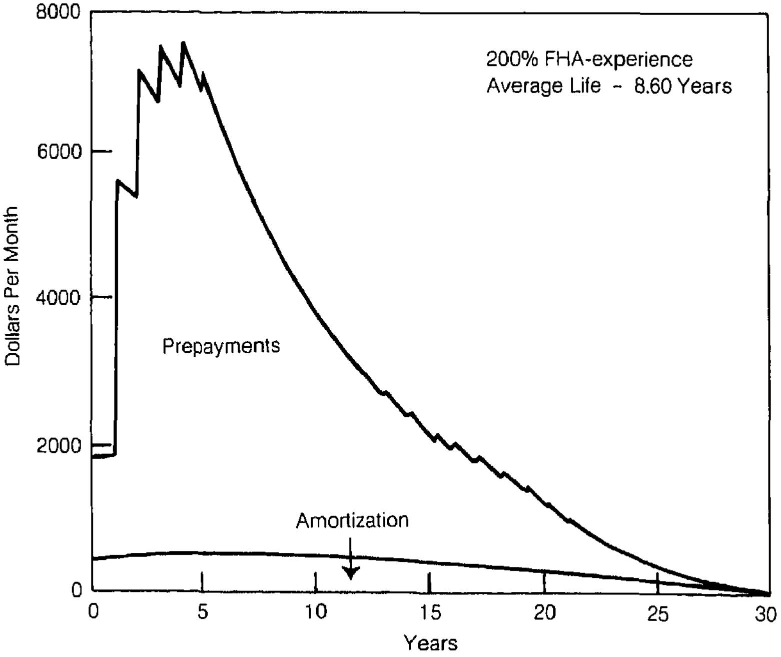


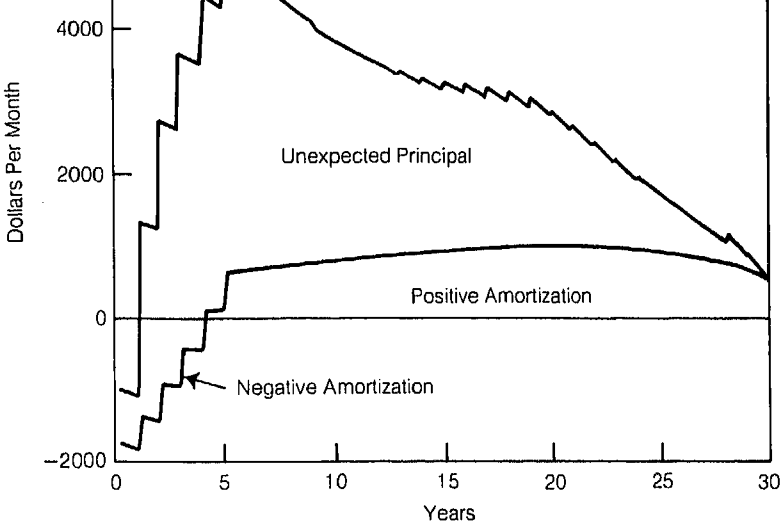
Principal Payments from $1 Million GNMA 9½





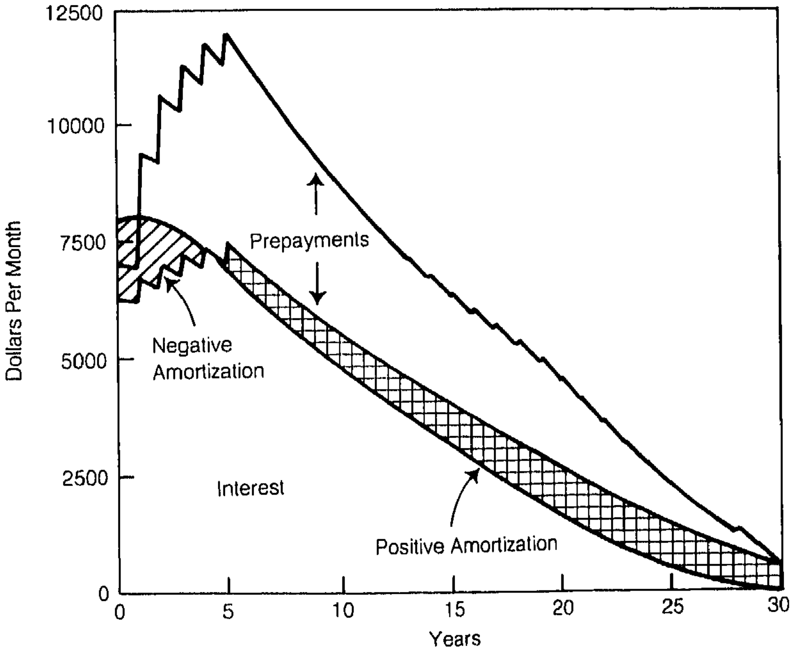
Principal Payments From $1 Million GNMA 9½

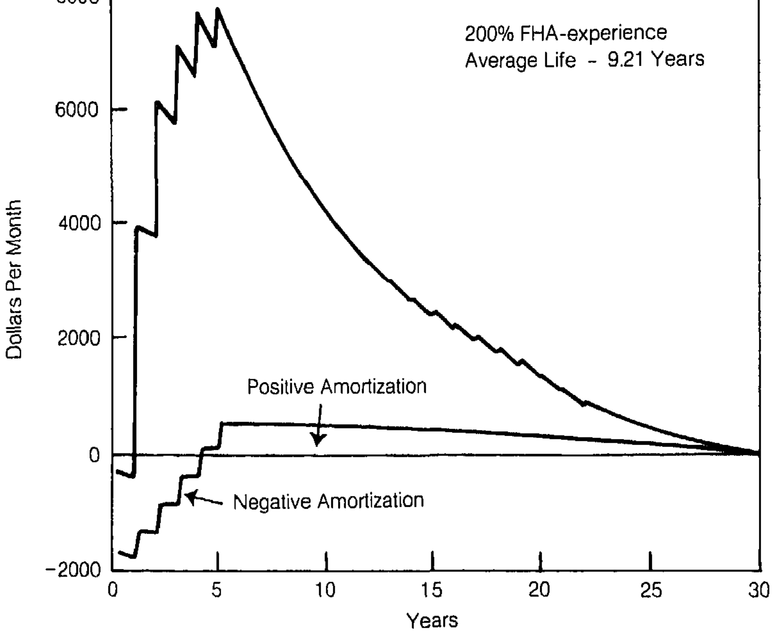




Cash Flow Components of $1 Million GPM 9½

Pass-Through 100% FHA-Experience

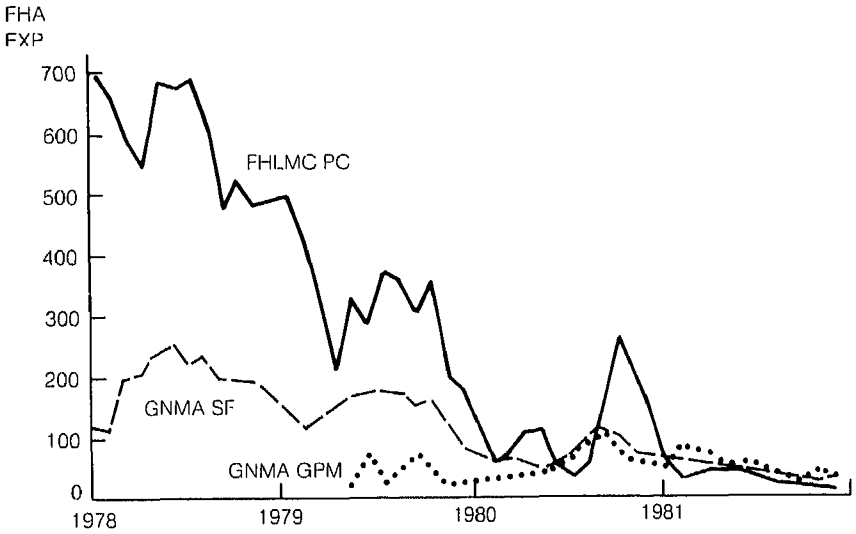



200% FHA-experience
Average Life - 9.21 Years
Dollars Per Month
6000
4000
2000
0
−2000
Positive Amortization
Negative Amortization
0
5
10
15
20
25
30
Years

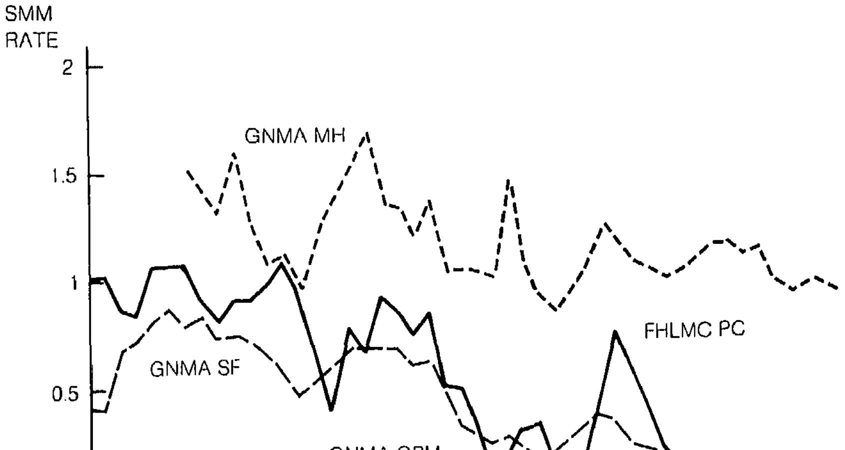
During the fourth quarter of 1981, FNMA sold $250 million in discount pass-throughs in its first auction. These 8½% securities were backed by loans with an average 9.88% interest rate and an average maturity of about 26 years. More auctions should follow in the first quarter of 1982 with an offering circular reflecting year-end 1981 earnings.

The FHLMC "Guarantor", or "Swap" program began in July, 1981 and as of year-end had brought $2.3 billion of discount PCs into the marketplace. Most of these securities carry 8%-9½% coupons and contain mortgages that are at least 12 years old (28.8 years remaining term). These issues tend to be far smaller in pool size than the $100 million level on ordinary PCs, which may lead to some decreased consistency in their prepayments.

Average Prepayments (FHA Experience)
By Type of Pool



Average Prepayments (%SMM)
By Type of Pool



Questions

- Which quality - cash flow or yield - is more important and when?

- Is possible concern over lower initial cash flow in some of today's innovative mortgages (GPMs, for example) mitigated or countered by the likelihood that mortgages with these characteristics are mor affordable and thus probably available in higher volumes?

- How important is the lack of a fixed predictable cash flow?

Section Five

Liquidity

Liquidity of mortgage investments varies widely, depending on the type of package - the issuer and the extent of risk protection - as well as the type of mortgages involved.

For purposes of this discussion, liquidity is defined as the ability to sell an asset at the best available price, as contrasted to marketability, which is simply the ability to sell. Thus, the best measure of liquidity is the spread between bid and asked prices: the narrower the spread, the greater the liquidity. For the most liquid of all mortgage investments - Ginnie Maes - the spread is ⅛ to ¼.

Liquidity as Related to Packaging

Mortgage-Backed Securities

The most liquid type of investment is the mortgage-backed security. Of the options in this category, the Ginnie Maes, carrying the full faith and credit of the U.S. government and having the greatest volume, offer the greatest liquidity. Also offering a high degree of liquidity are the FHLMC and FNMA issues, again because of the nature of their guarantees and the volumes and uniformity they offer.

Mortgage-Backed Bonds

In today's high interest rate environment, new MBBs have been offered in insufficient volumes to achieve much liquidity, but earlier issues have been traded. It is

Participations and Whole Loans

Direct investments in mortgages are less liquid than the more indirect vehicles because of the necessity of administratio and underwriting expertise on the part of investors and greater - though still insubstantial - risk considerations. Participations, however, which require less administration and in which the investor shares risk with another, are more liquid than whole loans.

Liquidity as Related to Mortgage Type

Packages containing the most standard types of mortgages and the greatest extent of individual loan risk protection ar the most liquid. Today, this means fixed-rate mortgages with FHA/VA backing or conventional mortgages with private insurance or low loan-to-value ratios enjoy the greatest liquidity.

It is expected, however, that as some degree of standardization develops for adjustable rate mortgages, principal adjusted mortgages and rapid principal recapture mortgages, liquidity for these instruments will be equal to - or even greater than that for more traditional loans.

Questions

- In a volatile interest rate environment, has liquidity become less important than ability to match investment and liability maturities?

- Given the expectation that many of today's newer mortgages will become highly popular with investors because of the protection they provide against adverse market movements, how sh they be priced? Will today's relative l of liquidity or tomorrow's surer return weigh heavier? Take rapid principal recapture mortgages, as an example

- What are the trade-offs between st dardization and liquidity vs custom ta ing of more innovative mortgage securities.

Section Six

Risks

As with liquidity, risk of mortgage investment depends on the type of package - and who the packager is - and on the type of underlying mortgage.

The least risk is associated with mortgage-backed securities because the issuer - either directly or through a guarantor or insurer - offers a degree of investment protection overlying the risk protection on the underlying mortgages - again through guaranty or insurance, or through low loan-to-value ratios. Ginnie Maes, with their dual layer of full faith and credit backing, are the most risk free, followed by "agency status" FNMA and FHLMC issues. Conduit issues, with private mortgage pool insurance, are the next in line.

Another degree of risk protection - both risk of loss and risk of "fast-pay, slow-pay" experience - is offered by securities backed by pools with originator and geographical diversity and/or larger pool sizes.

Mortgage-backed bonds are gene regarded as quality investments. The over-collateralized variety have frequ been rated Triple A, the pay-through AA.

Of direct mortgage investment, pa pations are the safest vehicles, sinc originator/servicer retains an interes the underlying mortgages.

Questions

- How important is a full faith and cr guaranty?

- Does the availability of instruments a range of maturities and cash flow acteristics alter investors' perceptio mortgage investments?

- What characteristics must private offerings have to be acceptable investments?

Mortgages as Investments – In evaluating mortgage investments, participants indicated a general preference for MBS's over whole loans. Whole loans, in which two of the funds have substantial holdings, are difficult to value for the purposes of meeting FASB regulation 35. Even though a couple of funds were successful with whole loans, most were unwilling to deal with the servicing problems involved, and preferred the simplicity of certificates. The pension plans agreed that seasoned mortgages are their favorite mortgage investment because of their yield, shortened maturity, lessened interest rate risk, and better value. (Also, they don't have to worry about discount income realized on the sale of seasoned mortgages because they pay no taxes.)

The pension plan participants said they viewed GNMA mortgage-backed securities as another form of U.S. obligation, *rather* than as a real estate investment. In the absence of the GNMA securities program, they said they would not necessarily invest the same dollars in other mortgage-backed securities or housing investments. Rather, they said they might invest in other top-rated credits, regardless of whether they were housing-related.

Conventional Mortgages and Risk – Most of the participants indicated that they were not heavily invested in conventional mortgages or mortgage securities. They perceive in them an element of risk that they have difficulty quantifying. Beyond cash flow and reinvestment risk, there is also considerable concern about the viability of any guarantees other than U.S. full faith and credit. FNMA and FHLMC were characterized as undercapitalized, and private insurers were considered very risky. The recent major financial mishaps involving Penn Central, Drysdale Securities, Chase Manhattan and Continental Illinois tended to exacerbate the sense of risk, but a strong underlying feeling that MBS's might prove

Cash Flow – Participants said that *all* mortgage investments have one major drawback: uneven and unpredictable cash flows. This makes it difficult to accurately price them, and makes them unsuitable investments for dedicated accounts (or, known pension fund liabilities.) In this they lack the simplicity of insurance company GIC's which possess the certainty of large numbers. A typical GNMA pool might only contain 40-50 loans, and one or two prepayments, or defaults, can create a significant change in cash flow.

Jumbo pools were raised as a potential answer to the cash flow problem but an investment advisor pointed out that jumbo pools can make cash flow predictable in a local sense only, not long range. Overall movements in the economy will affect prepayment and default in large scale ways which cannot be predicted. The possibility of attempting to sell parts of the cash flows, short, medium, and long term separately was raised but not viewed as feasible.

New Instruments – In an assessment of new instruments, adjustable rate and growing equity type mortgages were received with some uncertainty because of their newness and there were concerns about risk of default because of the increasing payments. It was recognized that the increase in equity in growing equity type issues involved more protection than with basic adjustable rate mortgages, but the whole breed was looked upon as somewhat suspect, although there was a strong belief on the part of the issuers and other industry people that some adjustables and growing equity instruments would become permanent. There was some receptivity by some of the funds to adjustable rate issues because they do tend to keep in tandem with liabilities, if the risk problems can be handled, and if the index for the adjustments is reasonable.

A desire for a way to participate in increased value of property was indicated but there was no interest in SAM's. The administrative and legal complications of SAM's appeared far too forbidding.

In the discussion of balloon mortgages, a clear difference in time perceptions emerged. Few if any investments fit into what was considered long term in the workbook. In fact, five years appeared to be the outer limit of a buy and hold strategy. In addition, it was pointed out that MBS's and housing investments in general do not fit into a long term strategy, because on long-term issues it does not pay to take any risk. So the fund managers were not as averse to balloon issues as expected, especially if some call protection were available, because the time range they were planning in was much shorter than originally believed. For practical purposes they did not necessarily look were available, because the time to hold anything longer than three years, and definitely would not be looking past the shorter end of our intermediate maturity range.

Investment Strategy – There seemed to be agreement that the pension funds look for a match up of investments to liabilities, but that they do not necessarily look at benefit payouts as the liabilities to be concerned about. More important are concerns about wage inflation and its potential effect on liabilities at long distance. The funds look toward investments with a view to maximizing cash, and preventing the development of unfunded liabilities. Since the funds are tax exempt there is not much concern about capital gains versus cash gains.

New Directions – A number of useful directions emerged. While jumbo pools might be attractive if they were kept relatively simple, the important thing was predictable cash flow along with high yield. This might require a managed, or insured

Investment in Mortgages – There was a general agreement among the pension funds represented that investing in mortgages was just a question of obtaining high yield and that as long as yield remained high mortgage investments would be attractive. Direct loans involved too much hassle in general and the funds were not equipped to handle whole loans, but mortgage-backed securities in the right market conditions would be treated as any other investment. In addition the variety of State laws governing mortgages makes anything other than pools difficult to work with.

Risk was not considered to be a serious inhibition for a large fund which had to be very diversified. A much greater concern was yield to cover unfunded liabilities. It was recognized that a fund for a shrinking business, or a closing out fund would have to be more cautious, but, in general, risk was not a major concern.

Risk – Risk was generally defined as the risk of not getting back a planned return, whether that was the result of default, reinvestment loss, or other factors. Because of the large size of the funds, it was not thought that any individual risk was that important. In fact, higher risk investments, such as lower grade bonds, were seen as good investments under proper conditions because of the high yield involved. The greater risk for a growing fund was that of not meeting open-ended liabilities that could be projected. Private mortgage pools, from this perspective, were very good investments. However, there are limits to acceptable risk and negative amortization instruments were considered suspect.

Proliferation of Instruments – Awe was expressed at the growing number of instruments, of "bells and whistles" attached to mortgages and mortgage investments. This proliferation is a problem because of the difficulty in interpreting

On specific instruments, ARM's were considered worth looking at if a real rate of return could be achieved. The index is a problem. There was some agreement that the rate should be matched to instruments of the same length as period between changes. Indexing to the CPI or GNP Deflator was also suggested as a way to guarantee real return. It appeared that most of the funds were beginning to place more emphasis on obtaining a *real* return for their investment. GPM's with negative amortization were not looked on favorably because of the increasing risk. Generally, the funds were not impressed with the multitude of new instruments because of a feeling that the market situation was a universal problem and housing finance would improve with the overall market. The need was seen for a few basic instruments, which could be marketed widely.

Call Protection – The primary liability of mortgage investments voiced by participants was lack of call protection. This was the reason cited for the spread between GNMA's and Treasuries. MBS's have call protection if rates are rising, but not on the downside. More balance was needed. As it stands investors cannot afford to stay in the MBS market on the way up and are forced out of their MBS investments by prepayments as rates decline. An ability to lock in higher rates for a longer time might lower current premiums, and would make mortgage investments attractive over a wider range of market conditions.

Prepayments penalties – One means of gaining call protection would be to have prepayment penalties. It was pointed out that, in fact points are a prepayment penalty, a heavy one, and the points could be substantially lowered or eliminated if declining prepayment penalties were put into the early years of mortgage contracts. This would give consumers' choice, in many cases save them money, and lower

Managed Pools – Strong interest was indicated in the measures being taken to allow for managed pools which would permit more even cash flows in MBS investments. Some concern was raised about the lack of uniformity implied in the proposed Trust for Investment in Mortgages legislation, because of the already great concern over proliferation and difficulty in analyzing mortgage instruments. However, change in Grantor-Trust restrictions did receive support, as well as the changes in ERISA regulations on prohibited transactions.

the last decade. As of year-end 1982 its assets totaled $570 billion. With State, local and U.S. Government pension funds added in, the grand total swells to $925 billion. This sum amounts to over $4,000 for every person in the United States.

Not only are these absolute numbers large, but their size relative to other assets is equally impressive. For instance, pension assets for many corporations are now the single largest asset managed by, or on behalf of, the corporation. For example and, in fact, as of the end of 1982 the pension assets of U.S. Steel Corporation were in excess of $5 billion and were more than double the total market value of the stock of U.S. Steel. The pension plan assets of both profit and nonprofit organizations in the United States constitute a significant pool of money that must be managed like any other asset. Hence, the process of setting the appropriate investment objectives, selecting the appropriate investment vehicles, and monitoring the overall results is indeed an important one.

Objectives

The objectives which must be established for pension fund investing must necessarily link the present and prospective assets of the fund with its current and potential liabilities. Traditionally the activities of pension funding, and pension investment, have had a tendency to exist within many organizations as separate entities. While their common goal has been to provide reasonable retirement benefits at minimum cost and risk, the investment manager, the benefits manager, and the actuary responsible for the long-range pension cost estimates face different tradeoffs in their separate areas. Benefit levels must be weighed against their costs. The actuary

ing which at least meet the minimum legal funding requirments, while the investment manager must balance the ever present desire for increased return with the prospect of increased risk. There is a need to make sure these different tradeoffs are consistent as possible with each other and that these different areas be addressed simultaneously in coordinated fashion. Therefore, available choices for investment cannot be looked at within the context of forecasted capital market returns only, but must also be scrutinized within the nature, size and chronological order of the anticipated benefit stream.

Fortunately there now exist pension planning models that incorporate the special characteristics of each plan. The models allow the plan sponsor to address the impact of alternative asset mixes vis-a-vis the specific pension liability in question. Hence, the asset mix can now be tailored to reflect each plan's needs.

Traditional Asset Groups

Historically, pension plan portfolios have been composed primarily of stocks, bonds and "cash". (The last item, cash, includes money market instruments such as treasury bills, bankers acceptances, and bank certificates of deposit.) All three items are relatively liquid and are traded in well established markets.

Since 1926, stocks have generally had a greater total return than bonds and cash is equal to the dividends or interest paid out plus any capital appreciation or less any capital depreciation. The total return on any given stock for a given year will equal the dividend paid plus or minus the change in price of the stock. From 1926 to 1982 stocks, as measured by the Standard & Poors 500, an index of the stocks of 500 large U.S. corporations, had a compound annual

and Sinquefield returned 3.5% and 3.1%, respectively, on the same basis. If one had invested a dollar in a portfolio of stocks in 1926, it would be worth $162.22 in 1982, as shown in Exhibit I on page 5. Similarly, a dollar investment in corporate bonds, and treasury bills, would now be worth $10.37 and $5.81, respectively. Unfortunately, as the old lament goes, a dollar "just ain't worth what it used to be". A market basket of consumer goods worth a dollar in 1926 would cost $5.45 in 1982. Inflation, as measured by the C.P.I. averaged 3.0% annually, just slightly lower than the rate of return on treasury bills and corporate bonds. See footnote (a) below.

Investments which return more on average tend to experience more annual volatility. Exhibit II (page 6) compares the compound annual rates of return for assets with annual volatility as measured in standard deviation of annual return. An asset with high annual standard deviation has had more volatile annual returns. See footnote (b) below. Over long periods of time the relationship between higher return and higher volatility has held very well.

Over shorter periods of time, such as the last 11 years, (1971-1982), the relationship does not necessarily hold as well. As shown in Exhibit II, total returns on stocks, corporate bonds and cash were 8.3%, 6.6% and 7.7%, resepctively. The same investments had standard deviations of 19.6%, 13.6% and 3.3% respectively. Bonds, due to their high relative risk of 13.6% and low relative return of 6.6% were, in hindsight, very unattractive 1971 investments. Cash, on the other hand, had a high relative return of 7.7% and low relative risk of 3.3%. None of these investments did very well against inflation which ran at a 7.8% rate. Only stocks beat inflation and that was by only an increment of 0.5%.

Assets of Private and Public Pension Funds, Year-End Value
(billions of dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
1. Insured pension reserves	$ 52.3	$ 56.1	$ 60.8	$ 72.2	$ 89.0	$101.5	$119.1	$139.2	$164.6	$192.7	$224.7
2. Noninsured pension funds	156.1	134.3	115.5	146.8	171.9	178.5	198.6	222.4	286.1	293.2	344.8
3. Total private pension funds	208.4	190.4	176.3	219.0	260.9	280.9	317.7	361.6	450.7	485.9	569.5
4. State and local government	80.6	84.7	88.0	104.8	120.6	132.6	153.0	170.1	202.7	221.7	257.4
5. U.S. government retirement funds	33.4	35.5	38.2	41.9	46.4	52.9	59.8	67.7	76.4	86.2	97.9
6. Total public pension funds	114.0	120.2	126.2	146.7	167.0	185.5	212.8	237.8	279.1	307.9	355.3
7. Total private and public pension funds	322.4	310.6	302.5	365.7	427.9	465.5	530.5	599.4	729.8	793.8	924.8

Source: Board of Governors of the Federal Reserve System 1983

As explained in footnote (b) below, very wide variations in the return on stocks are to be expected over different periods of time. To give more specific figures, if $1 had been invested in 1948 and kept invested until 1962 the average rate of return would have been about 16% compounded annually. On the other hand, if $1 had been invested in 1972 and kept invested for two years, the average rate of return for the two year period would have been about -30% compounded annually. Moreover, the graphical record shown in Exhibit I cannot reflect the great loss of investment confidence which generally accompanies the times when deep bear markets prevail. The wide variations in stock investment yields over different periods of time highlight the importance of having a pension asset manager who keeps his portfolio under constant review and who at all times tries hard to maintain the best investment mix currently appropriate for the monies entrusted to his care.

Investment Vehicles

Our investment policy is based upon our managers' outlook for the economy, interest rates, and corporate profits. We alter the asset mix of the pension plan among our chosen investment vehicles based upon the relative outlook for these investments and how they are

much of the year with both inflation and interest rates in a declining trend. A modest component of our fixed income participation has been in mortgage related securities. As the year progressed, we increased the percentage of our assets in equities as the prospects for the economy improved.

At the present time, we are nearly ful invested, with cash at a minimum level This is predicated on our managers' belief at this time that long term financi assets will offer superior rates of return in an assumed environment of stable inflation, declining interest rates, and modest economic growth. Equities appear to be the most attractive based upon the prospects of an economic recovery and rising corporate profits. Within the equity component of the por folio, our managers have increasingly emphasized industries and companies which will benefit from an economic

(b) *Example:* Stocks have had a 9.3% annual return and a standard deviation of 21.7%. For any given year from 1926 to 1982, the return on stocks could be expected to fall between -12.4% (9.3 - 21.7) and 31% (9.3 + 21.7) two-thirds of the time. In a very rough qualitative price-earnings ratios which have been depressed for the past 10 years by rising inflation and rising interest rates, and generally inconsistent economic policies. If a more stable economic environment combined with consistent government policy should materialize, a period of sustained advances in equity prices, such as occurred in the 1950's and 1960's, could take place.

In addition to stocks, bonds and short-term cash equivalent instruments, a number of more nontraditional investment options are available. Many of these can perform special functions not possible with traditional investments, and are useful for enhancing total return, lowering portfolio risk, or both. The most widely used are international investing, real estate, convertibles, financial futures, options, and bond immunization.

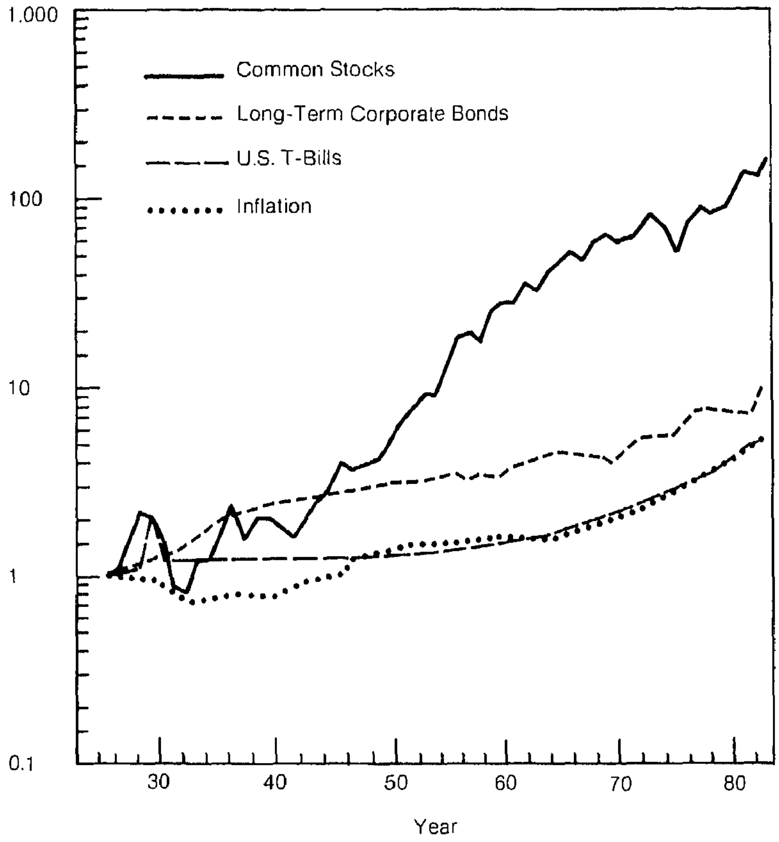
International investing can improve incremental return by participating in foreign markets that have potential for above-average growth. Investing internationally can also lower the risk in a portfolio since the correlation between international assets is less than that between domestic investments. Thus, investing in foreign equities is a useful means of portfolio diversification.

Real estate investments have several advantages. Good real estate participations can provide total rates of return that are consistently competitive with other assets. Real estate also provides a further means of lowering portfolio risk through diversification, and tends to be a good hedge against the possibility of higher inflation. In addition, the large size of many real estate projects makes them suitable for clients who have a substantial amount of assets under management.

Convertibles are useful because they combine the features of both fixed income investments and common stocks. Due to their future convertibility into underlying common stocks, they share to a degree in the capital appreci-

ments. They thus offer very good potential total return in many market scenarios.

Wealth Indexes of Investments in the U.S. Capital Markets
1926-1982



Financial futures and options allow an investor to increase investment flexibility and manage risk. Stocks index futures, which represent a group of securities encompassed by a particular index, permit an investor to hedge portfolios against general stock market moves without disrupting portfolio composition. Stock options provide the same flexibility with regard to individual equity securities. Fixed-income futures, which are contracts to buy or sell specific fixed-income instruments at some future date, make it possible to hedge the fixed-

Bond immunization is a means of achieving a target level of return for a portion of a fixed income portfolio over a specified period of time, and is particularly useful for locking in a high rate of return in high interest rate environments and for insulating a portfolio from interest rate changes. The immunized fixed income portion of the portfolio may, for example, be of sufficient size to cover the actuarial liability of the presently retired participants and beneficiaries of a plan.

Government-insured and conventional mortgages offer investors an opportunity to improve performance and increase diversification. Attractive fea-

(1926-1982)

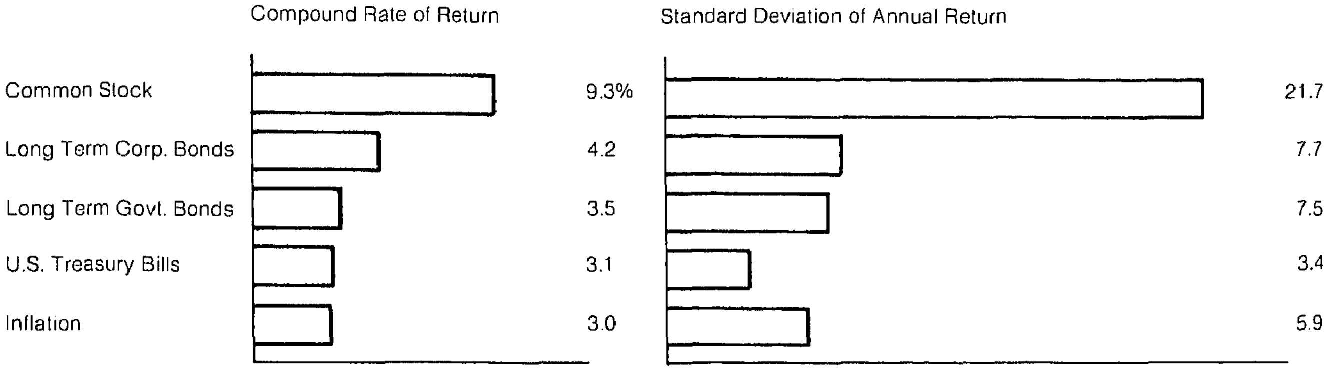
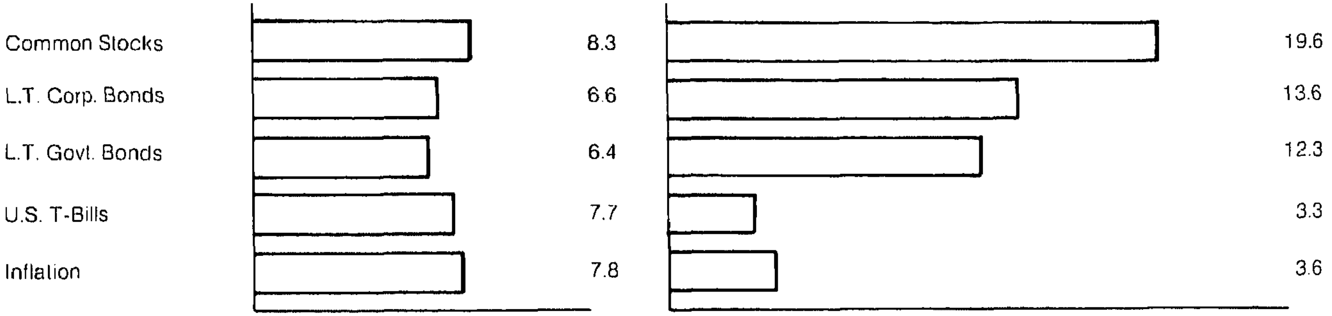


Exhibit 3

Historical Return and Risk Information
(1971-1982)



liquidity. Government-insured mortgages are mortgages on residential housing insured by the Federal Housing Association or guaranteed by the Veterans Administration or Government National Mortgage Association. A broad secondary market for these has developed which offers liquidity and a larger potential market. Conventional mortgages offer a premium in yield over corporate obligations as well as government-insured mortgages depending on the value and credit quality of the real property pledged. Diversification is available geographically and by types of property including single family dwellings, apartment building, office building or shop

mortgages outstanding totaled $1,685 billion which is approximately one-third of the almost $5 trillion fixed income market.

Concluding Remarks

As a practical matter, it appears nearly impossible to realize over a sustained period of years a consistently predictable rate of return. For example, stock prices and earnings kept rising consistently during the years 1952-1972 with the result that by 1972 many plans became invested up to 75% or more in equities. In the next two years, however,

The managers of pension plan investments will always be faced with the question whether at a specific point of time equities are suitable investments and with the question of the proper mix between equities and other investments Our current thinking is that equities are indeed suitable investments, and we are now about 60% into equities. We are prepared, however, to change our investment mix as conditions warrant. We believing in realizing capital gains from time to time, but remain aware that losses as well as profits can, and do, occur in the market place. At all times we try hard to manage our funds in a manner whereby losses are kept within

I appreciate this opportunity to describe the private pension sector's view of the mortgage market and our opinions on investment in mortgages and mortgage-backed securities. First, however, let me briefly outline the General Motors structure with regard to pension funds - a setup which may be regarded as representative of many large funds, but because of our massive size would not be considered typical.

The investment of pension funds is part of the responsibilities of the Investment Funds Activity of General Motors, which is headed by W. Gordon Binns, Jr., Chief Investment Funds Officer. About half of a staff of 26 devotes all or a substantial amount of its efforts to pension or other benefit fund analysis, investment and administration. As Director, Investment Manager Relations reporting directly to Mr. Binns, I am the focal point for worldwide pension fund investment matters, and have a staff of three reporting directly to me. Thus, recognizing that our U.S. pension funds exceeded $14.9 billion at year-end 1982, and there is somewhat more than a billion dollars worth of assets held outside the U.S. with respect to non-U.S. pension plans, we run a pretty tight ship organizationally.

Of the U.S. pension assets, just over $3.0 billion are held by insurance companies and are invested primarily in their general accounts. As such, we have a fair amount of indirect mortgage investment exposure through those vehicles, but as this participation is not readily ascertainable or controllable, I am neither attempting to take credit for this nor including it in the numbers I cite later. Our scrutiny will focus on the balance of the assets which are under the custody of trustee banks and which have, over their 30-plus year history since being started in 1950, had portions of the funds invested in a broad range of asset classes, a not insubstantial one being residential mortgages.

In fact, initial communication of invest- time to time private placements including mortgages and similar investments which could be purchased to yield more than investments of similar quality but greater marketability. It then went on to state that where such investments are made, they should be justified by a higher yield than is available on standard issues with a ready market. Here we have a 32-year old statement of objectives which, free of today's technical jargon involving quantitative statistical risk and return measures, simply says "give me a competitive return when all of the quality, marketability and yield attributes are factored in and I'll buy the investment." I can state categorically that this basic attitude of investment policy has not changed. Certainly not at GM, where we can overlook no potentially worthwhile investment opportunity, and not with the private plan sponsors with which I have contact. They all have this same philosophy. The fluctuations in the use of mortgages as an investment by pension funds, as well as by other investors, is because the character of the mortgage investment instrument, and the nature of the securities markets of which it is a part, have changed such that the mortgage has not always met this constant test of competitiveness.

As an illustration, a review of the investment pattern for the GM funds shows that there was a gradual increase in residential mortgage investments during the 50's and early 60's, reaching a peak of over 7% of funds in 1965. Participation stayed in the 5-7% area during the balance of the 1960's, but plummeted in the early 1970's as rising interest rates made alternative investments more attractive and as heightened market uncertainty made liquidity of the investment instrument of much greater importance. As a result, by year-end 1972, residential mortgages were only 1.8% of the GM trust funds.

It was about this time that someone invented the better mousetrap, or at least manager's quiver of investment alternatives. Illustrating this, private non-insured pension funds held only $2 million of Ginny Mae and Freddy Mac pools in 1970. This number grew to over $1 billion in 1975 and in 1980 was $12.3 billion. Looking at the GM funds, when we count the Ginny Mae's and FHLB certificates, as well as bank-packaged mortgage pools, along with directly held mortgages we still have, investment in residential mortgage loans has returned to a level of 4-5% of our total fund investments.

I would reemphasize that my basic point in this historical excursion is that when mortgages have the attributes that make them competitive, they will be invested in, and when they lack such qualities, they will not. I would offer that when the fall from grace occurs, it is not the pension plan sponsor, but rather those who create, package, market, insure or otherwise process mortgage investments who must adapt the product to meet the changed competitive environment.

In this regard, an entity we all know, the Federal Government, has stepped in to study the issue. With a basic goal of increasing the amount of money available for home mortgages - that is, to increase investment demand for mortgage securities - the Department of Housing and Urban Development has undertaken a fact-finding effort focused primarily at private pension funds. This effort, which still continues, has included "sounding board" meetings of plan sponsors interfacing with representatives of HUD; Federal Housing agencies such as GNMA and FHLB; the Federal National Mortgage Association, a private corporation; major brokerage firms working on packaging mortgages and creating new products; mortgage insurers and others. Having been involved as a member of one of the sounding boards, I thought I might take a little time to review the major trends of opinion on mortgages that we plan sponsors have sounded off about.

tives - mortgage investments would be attractive. The burden and cost of creating and administering mortgages has generally caused us to trend away from direct loans and toward the pooled mortgage pass-through security. The pool was also felt to be an attractive alternative since its marketability made it usable in an overall strategy of active fixed income management.

One factor which was identified as adding to the administrative burden and therefore prompting the use of pools is the existence of a different set of governing regulations, such as foreclosure laws, in each of the 50 states. As one private plan sponsor put it, to make direct loans attractive, mortgages need to be declared interstate commerce. I would suggest that, if it is not already being done, an effort by the thrift industry to push for regulatory standardization could aid in the attractiveness of mortgage investments. Until that time, the complications of both the regulatory environment as well as the administrative process will continue as negatives to private pension funds providing mortgage money unless pools are used.

Complication was a theme that crossed a number of areas. It was rampant in the proliferation of mortgage products being generated by the creative minds in the industry. Beyond the standard fixed rate instrument, there are adjustable rate loans, either with or without a negative amortization provision; graduated payment mortgages (GPM's); shared appreciation mortgages (SAM's); price level adjusted mortgages (PLAM's); balloon mortgages; and, last but not least, growing equity mortgages (GEM's) either indexed or with a fixed initial schedule of increases. Adding to these approaches the various permutations generated by varying maturities, types of residences financed, and other "bells and whistles," one is confronted with an inventory of alternative instruments, the size of which generated a reaction among sponsors best described as awe.

enhancement to, increasing commitments of funds to mortgages, because of the difficulty of evaluating the investment and its yield. Plainly stated, we sponsors need to know exactly what we're buying and whether it's the best investment to buy at the time, and many alternatives, some very esoteric, make it hard to judge the instrument on its absolute worth or its value relative to other mortgage alternatives or other non-mortgage investment choices.

There is another reason that we plan sponsors are basically not impressed that the number of mortgage vehicle choices is as large as it is - we believe it will be reduced. This opinion is generated, in part, as a result of the perception that almost all of them, as a reaction to the high interest rates as well as the weak housing market, have been created with one goal in mind: to reduce the size of the borrower's monthly payments early in a mortgage's life. Markets, however, do correct in general and forces of supply and demand in the mortgage market will also accomplish this goal. In fact, interest rates have come down, with the effective rate on commitments for 25-year fixed rate mortgages at 14.6% in December 1982, down from 18.2% in late 1981. The rationale is that, as a result of lower yields, borrowers may not need to seek a multitude of creative ways to lower their payments, a deproliferation of product type will occur, and a few basic instruments will survive which could be marketed widely, meeting the needs of both borrower and investor.

While still on the topic of the different types of mortgage instruments, I would like to highlight points which were raised by the plan sponsors on the sounding boards with respect to two specific mortgage products: Adjustable rate mortgages and mortgages with negative amortization. Regarding the former, the adjustable rate feature was viewed favorably provided the rate adjustment formula would generate real rates of return above inflation. Key to

year treasury note rate instead of a 30-year bond rate if adjustments are to be biannually) or tied to an index of inflation itself, like the consumer price index or the GNP deflator.

Negative amortization was reacted to as a real negative from the investor's standpoint because of the cost and complexity of accounting for such instruments, as well as concerns about the tax treatment of the capitalized interest.

Summing up the comments on mortgage instruments, the number should come down, and it is believed will come down, to a level including only those that are understandable and have attributes that address the needs of both the borrower and investor.

In this regard, the plan sponsor group raised a concern on an attribute of the mortgage instrument which does not mee the needs of both borrower and investor and could therefore be identified as a hurdle to investment. Namely, with mortgages or mortgage backed securities there is the lack of anything effectively equivalent to the call protection on a bond.

During the period of the sixties and seventies, with generally rising interest rates, prepayment penalties gradually disappeared from mortgage instruments. The penalty was infrequently invoked because the mortgagor rarely had economic incen tive to prepay and its removal probably aided in convincing borrowers to step up to taking down a mortgage despite continually rising rates. This has led to a current situation where the investor is at a decided disadvantage to the borrower. He cannot lock in the yield for any length of time because if rates drop, the holder of the mortgage simply pays it off. On the other hand, if rates go up, there is no abil- ity for him to call the loan and reinvest at higher rates. This one-way street, this lac of quid pro quo where the borrower gets the best of both worlds - below market rates when yields move up and the ability to reduce his costs when they drop - is great barrier to the investor stepping up to the mortgage market, even at times of high yields. Other instruments will also have high returns, albeit probably lower than mortgages, but will protect the investor from losing his yield to a call of the investment. Corporate bonds have 5 to 10 years of non-callability or some form of call protection and 30-year Treasury bonds are not callable at all. The trade-off of a much greater long-term certainty of yield for a somewhat lower level of yield can cause the bond to win the competition for the investor's dollar over the mortgage or mortgage-backed security.

The current market offers at least one example related to mortgages of the importance of call protection to the investor. Based on an analysis of the yield spreads, users of marketable mortgage-passthrough and mortgage-participation certificates are paying more for low coupon deep-discount seasoned mortgage pools because they offer defacto call protection - in a 14% mortgage market, a pool of 8-10% mortgages is much less likely to have a high, or any, prepayment experience than a pool of 15% mortgages. As an illustration, last week 8%-10% GNMA pools had a yield of 11.5 to 11.75%, "at the market" pools with 13-14% coupons had yields of 12.5 to 13%, and the 16% coupon pools had a 14.5% yield. A 250-300 basis point annual yield give-up for surety of return inherent in the difference between discount pools and the high coupon pools is a dramatic example of the value of call protection.

Some plan sponsors also noted that a form of prepayment penalty already exists - it's known as "points". This front-end load charge, because of its heavy impact, might be viewed by some as a deterrent to prepayment. But to the financial analyst, it is a sunk cost and if rates drop a year hence and prepayment at that point makes economic sense *going forward,* the borrower would rationally choose to prepay regardless of the amount or even the existence of points at the inception of the mortgage.

It would be much more effective to lower or eliminate the points and provide for prepayment penalties, possibly on a declining scale, during early years of the mortgage contract. Investors would then respond by lowering the premium which I illustrated earlier because the reason it is demanded, namely to protect against adverse experience from assuming reinvestment risk, will have been significantly mitigated. Thus, even if the economic valuation of the points and the penalties is a wash (that is, the mortgage writer and processor neither gains any additional potential income nor returns any of his take as a middle man to the borrower) the borrower would save money by having a lower monthly payment.

So far, I have addressed the past and the present. I will now take a brief look to the future. One thing it is believed should be clear is that the volume of mortgage investments in private non-insured pension funds will continue to depend on those instruments being able to compete on purely investment criteria. Our fiduciary responsibility is to the plan's beneficiaries to obtain the best possible return for the risks taken. The attainment of this performance objective, which assures the security of the pension promise, cannot be subjugated by social or other criteria, no matter how worthwhile that social goal, such as providing housing, might be.

However, the pension sponsor group is also not one-sided. For example, we would generally support the concept of changing ERISA regulations regarding prohibited transactions as they might to the investment in residential mortgages. The point here, briefly stated, is that there should be neither aid to nor interference in the decision to invest in mortgages beyond the assurance that they receive an objective investment evaluation in the marketplace.

The single prediction I could make about the future of mortgage investments in pension funds is that, at least with the large funds, there may very well be plan sponsors in the mortgage banking business a decade from now. Individual mortgages do have a yield advantage over the mortgage-backed securities that they stand behind. Given a large enough potential portfolio size, staffing to originate, underwrite and document loans could prove cheaper than paying the prevailing fees charged for providing these functions. Economies of scale could also tend to reduce the costs of mortgage servicing and mortgage insurance from current levels. Further, from an investment standpoint, internal administration could provide each fund with the flexibility to exactly tailor its mortgage portfolio to its own overall investment objectives.

And to close, I think that even for smaller funds, my last point - to tailor portfolios to investment objectives - has ramifications for those in the secondary mortgage market business, as well as more broadly for all purveyors of investment products. Rather than developing a new idea and then trying to market it to many funds who individually have, and are more and more realizing they have, diverse investment objectives unique to themselves, I believe the successful sale will be made by the firm which has the flexibility and expertise to tailor-make products for individual funds and to do it at a cost and with risk and return parameters optimum to that individual sponsor.

I thus throw to the mortgage finance industry the challenge of providing competitive product and competitive approaches to residential mortgage investments during the certainly dynamic and I believe greatly exciting investment environment of the 1980's.

construed as those of Eastman Kodak Company, its Pension Fund, or of Eastman Savings and Loan Association, with whom the writer is affiliated.

1. Need for remedial legislation to preempt State laws relating to foreclosure of mortgages, "doing business" consequences in the various States, etc.

Comment: With 50 different sets of mortgage foreclosure laws requiring varying lengths of time, e.g., from six months to two years, to re-acquire property taken by foreclosure, investors must first look to see what State the mortgage is in before investing, and then assess the impact of the individual foreclosure laws of that State to determine the relative attractiveness or unattractiveness of the specific mortgage investment. It is also my understanding that investors may run afoul of the various consequences of "doing business" in the various States, particularly if they originate mortgages in those States. (The United States League of Savings Associations did a thorough State-by-State analysis of foreclosure and "doing business" laws some years ago and published it in their *Legal Bulletin*, if one is interested in these subjects.)

A few years ago, the first step was taken in this direction, when Federal statutes preempted State usury statutes so as to cut across the "web" of various rate ceilings imposed by States; however, as I understand it there is a time limit on that legislation and individual States can effectively nullify the impact of this legislation if

period. The point is that mortgage lending should be declared to be interstate commerce by the Congress and, thereby, preempt State laws affecting mortgage lending. This would stabilize the investment climate and settle the matter for once and for all.

2. *Need for variable rate FHA-VA mortgages.*

Comment: With the unprecedented interest rate volatility and its devastating impact on the savings and loan business, which we have experienced in recent years, unless and until an investor is assured of more stable interest rates, it is probably imprudent for pension funds to invest in fixed rate mortgages unless they can demonstrate an ability to determine the risk premium which needs to be charged to protect them against run-away inflation (and I doubt anyone can accurately assess that risk). Certainly, no one would want to see pension funds in a replay of the recent scenario experienced by thrift institutions, in which many found themselves insolvent because of their heavy reliance in the past on fixed rate mortgages. Investors in recent years have learned that a long-term fixed rate mortgage at a low interest rate can be disastrous and that one of the few ways of protecting themselves in a runaway inflation environment is to use the variable rate mortgage, which gives them variability on the up-side of interest rate movements. The fixed rate FHA-VA mortgage is in reality a misnomer since it is only a fixed rate on the up-side of rate movements. Fixed rate mortgages which are prepayable by the borrower without penalty (as are FHA-VA mortgages) are, in effect, variable rate mortgages on the down-side of interest rates since they can be prepaid and refinanced anytime by the borrower, should interest rates drop.

to an investor, must have some sort of call protection if they are to compete with other debt instruments.

Comment: Understandably, mortgage borrowers should have some right of prepayment in the event of death, move by an employer etc., but to give a borrower an unlimited pre-payment right without penalty on FHA-VA mortgages is, in effect, giving the borrower a variable rate mortgage when interest rates decline because all the borrower has to do is refinance at a lower interest rate if rates fall. Such a feature is not symmetrical (compared with the fixed rate on the up-side) and is unattractive to long-term investors, particularly when they can invest in long-term bonds of the U.S. Government, corporations, etc. which are not redeemable or callable by the borrower except by paying a penalty, and at certain times, e.g., 5 or 10 years. An investor making a long-term fixed rate investment wants protection against an attractive fixed rate obligation being called away from him without penalty; otherwise he will presumably demand a price for the lack of call protection, in the form of a higher initial interest rate.

4. Consideration should be given to permitting a "due-on-sale" clause in FHA-VA mortgages.

Comment: Compared with conventional mortgages, the lack of a "due-on-sale" clause in FHA-VA mortgages makes investments in that type of paper less desirable from the investor's standpoint, particularly if interest rates are rising. Also he underwriting is based on the first borrower only; without such a clause one nore element is injected into the pricing process (presumably an upward factor) vhich is not present when an investor ouys a bond as an alternative.

5. Standardization of documents is essential.

Comment: While great progress has been nade towards standardizing mortgage ending documents, there is still a long vay to go toward the goal of one standard nortgage document for borrowers and nvestors, i.e., a document which could be used by FHA, VA, FHLMC, etc. It is my eeling that HUD in connection with other ederal and private mortgage agencies could do much to bring about a standard nortgage document and standard underwriting criteria, e.g., need for instrument survey, title insurance, debt load atios, etc.

6. More flexibility is needed in the variety of mortgages which are permitted by FHA-VA.

Comment: With deregulation of the thrift business, borrowers are being offered many new and different products, e.g., adjustable rate mortgages, balloon mortgages, growing equity mortgages, graduated payment mortgages, shared appreciation mortgages, etc. In my opinion, FHA and VA lending could be increased substantially if there were greater flexibility in the types of mortgages insured or guaranteed by the government or its agencies.

7. To compete against other investment instruments, mortgages in a deregulated environment will need to offer a market rate and provide comparable liquidity and security.

Comment: While paying market rates was not necessary when ceilings were imposed on savings rates, which in turn made mortgage money available at below market rates, it is now clear that mortgage interest rates and instruments will have to compete in the marketplace for available capital along side the U.S. Government, State and Local governments and the private corporate sector.

Rochester, New York Donald E. Synder
April 30, 1983

been proposed by entrepreneurs and frequently discussed in the pages of Popular Science or other technology journals. However, we have yet to see the first tugboat sail for Greenland and one suspects it will cast off in the same year private pension fund managers embrace residential mortgages as a significant element in portfolio allocation.

Neither development is technically impossible and each has some practical and human appeal. Yet, in 1983 both still confront quite satisfactory and simpler alternatives: desalinization, recycling, intensive irrigation for desert population and a range of easily understood, marketable and liquid securities for pension portfolios.

Mortgage bankers and home builders have long eyed the accumulation of private pension assets as an oasis to refill canteens drained by the net increase in single and multifamily mortgage debt of nearly $1.2 trillion since 1950, over $800 billion of this since 1970 alone. Yet, in 1982, according to a Pensions & Investment survey only 1% or approximately $2 billion in mortgages was held by the 67 corporate pension funds which are among the largest 200 pension funds of all three major categories - corporate, public and union. Even this blurs the case, as many of these corporate fund mortgages are in commercial properties. While a counterbalance may be the GNMA-pass-through, defined by some respondents as bond holdings, we could expand the pension fund universe to embrace all small funds and find this minor proportion of assets invested in mortgages declines as the accounting and servicer relationships become even less manageable.

Whatever the precise count, residential mortgages are only token in amount for private funds and perhaps only 7-8% of the public and union pension funds assets whose alternative investments are normally far more circumscribed by law and groups secure more latitude for choice, this appetite for mortgages has steadily diminished below 5% of annual flow.

Has this obvious reluctance of private pension plans to invest in private residences been a genuine problem? Not if we recognize that housing quality and homeowners' investment valuations have increased substantially during the past two decades in which pension funds largely ignored the mortgage market. Heavy subsidization by federal tax policy has largely offset rising mortgage interest rates, while housing purchase as an individual investment preference accelerated home prices. Mortgage debt growth contrasted with new housing construction values clearly illustrate a deliberate and rational choice by homebuyers of the 60's and 70's to leverage their rising equities by upgrading in size and feature or diverting newly borrowed funds to other consumption. Pension funds had no obligation to inflate that balloon and it is healthy for the entire economy that such funds did not extend the speculative period by replacing the thrift institutions as lenders.

Of course, not every family was able to ride this escalator and it is a commonplace to deplore the inability of young, newly-created households to purchase a home. Thrift institutions, mortgage bankers, and some innovative Federal and State assistance in lifting certain legal or tax obstacles will cure this in a free marketplace. If TIMS and other changes bring out securities to parallel the corporate bond market, private pension plans may well add them to their diversification list. But private plans seem unlikely to respond to any simplistic plea that they ought to compromise investment objectives in order to stimulate homebuilding. Residential construction has had a halo quality in postwar America. Yet, many perceptive observers have also noted that while mass transit and inner-city housing deteriorated, may not have been the best direction. Certainly, there is no merit in monetizing house speculation or the casual preferences for single member household dwelling units while denying bond financing to a corporate employer who needs new plant or equipment. Competitive investment return and an attractively packaged product will bring funds to residential housing, just as they did to oil exploration or personal computers. Whether some sectors of our society can afford to pay such returns is a political issue which is a decision for us a to explore, not a function of the pension funds whose constituencies have no voice, vote or common social purpose.

If there is no valid and overriding philosophic reason why private pension fund managers should select residential mortgages, why have they generally avoided them as an investment choice? Certainly, the choices are varied as adversity among the thrifts and ingenuity among the mortgage industry leaders, whose personal prosperity depends upon transaction volume, has produced an acronymic array of PCs, ARMs, GPMs, SAMs, ABMs and other esoterica. Their limited success suggests we first look at the only residential mortgage security which does frequently appear in portfolios, the Government National Mortgage Association pass-through certificate.

The established world of GNMAs is perhaps $120 billion in size, assuring poo diversification for the geographically sensitive investor and adequate liquidity for even the larger pension funds. GNMA uni trusts and mutual funds have drawn some individual investors, but basically GNMA's are an institutional investment with deep discount, low coupon certificates for the tax reinvestment conscious; middle range coupons for the cautious tax-exempt funds, and $10-11 billion of high coupon certificates for the unwary or the reflationary investor advocate. It is a familiar world for bond managers with active secondary markets and generally narrow spreads between bid and asked price quotations. The unequivocal U.S. Treasury-backed guarantee of punctual payment of full interest and principal meets every fiduciary test. Salomon and First Boston publish extensive research documentation and analytical concepts which permit a thoughtful decision. Yet, even in this brightly floodlit market, the inexperienced can be misled, as effective yields depend upon prepayment experience whose rate and consistency can be misstated, obscured, or at best difficult to forecast. Indeed, there is perhaps more complacency among portfolio managers about realizable yield than the 1981-82 prepayment declines would support.

Few, for example, may have focused on the Veterans Administration procedural changes, stimulated by the 1980 legislative action, which permits costless refinancing of high coupon VA mortgages. More importantly, beyond the yield consequences to this relatively modest segment of the GNMA market, is the reminder that Congress and Federal agencies can unilaterally alter the ground rules in a fashion no corporate bond trustee is permitted.

Historical experience for GNMAs is good, however. On the pure total return calculation from coupon income and price change which managers must display and compete with for accounts, GNMAs have a relatively favorable record in bear markets and nearly paralleled long governments in the most recent bull market. As a result, GNMA appetites among private pension plans may still be healthy, particularly as more funds reach a size or accounting capability to utilize them. This latter question is an ingredient mortgage bankers often underestimate since many custodian bank and manager's eyes glaze over at the task of dealing with monthly interest and principal calculation and verification in even a $25- simplicity appeal of Treasury issues can overcome yield spread for the manager whose marketing emphasis exceeds his interest in back office minutia.

As another practical aspect of reliance upon GNMAs, we can observe the budgetary implications and Reagan Administration proposals to phase out the guarantee authority which backstops these pools. Even if a reversal of political or fiscal sentiment sustains GNMA's pulse beat, homebuilders recognize that the peak pool creation years of 1979-80 averaged only $22 billion annually, or less than 13% of all residential mortgage origination. Clearly, the underlying FHA/VA mortgages are destined to remain a small fraction of total financing needs and the builder or homebuyer must peer in another direction to find his dollars. GNMA itself took tentative steps to broaden its pool menu, but few pension funds have been drawn to either the mobile home pools, which never exceeded $2.6 billion in aggregate amount, or the graduated payment mortgage (GPM). These have totaled $7-8 billion in issuance, but further confounded conventional fund accounting and performance measurements. Their modest yield advantage, derived from differing maturity characteristics and market unfamiliarity, never made them serious contenders for private pension funds.

If GNMA has valuable, but limited and perhaps diminishing impact, what of other Federal agencies? The conventional mortgage market, which consistently accounts for 80% of all residential origination has had the limited umbrella of the Federal Home Loan Mortgage Corporation since 1971 and an active dealer market in their Welsh railway station securities, FHLMC PCs, since 1977. Initially, these traded at substantial yield premiums to GNMAs as they were relatively unknown and little understood. Historically, higher prepayment rates for similar basic coupons and maturities made these appear attractive to more nimble from the flotsam of savings and loans which were foundering until imaginative accounting rules permitted them to sell off low coupon mortgages at no serious visible loss.

While the Federal Home Loan Mortgage Corporation is a creation of the past decade it is, in effect, a wholly owned subsidiary of the 12 district banks which comprise the Federal Home Loan Bank System which dates back to 1932. Since these district banks derive their "equity" capital almost wholly from the savings and loan industry, investor perception of FHLMC securities varies with the health of these shareholders. Over time, the marketplace has expressed strong confidence, witnessed by relatively narrow spreads over Treasury issues. However, the spikes of concern, most recently in 1981 and early 1982, lead some fiduciaries to question the premise for this confidence level. The Federal charter under which the Federal Home Loan Banks operate provides certain supervisory oversight, but anyone familiar with lending institution portfolios knows the difficulty of enforcement, or even disclosure. As the crisis of the entire thrift industry deepened through mid-year, few pension managers were wholly comfortable with the bland assumption that Congress, or the Federal Reserve or "someone" would always rescue the mortgage investors. While a dramatic drop in short-term rates has brought a respite, the basic mismatch of portfolio yields and cost of funds will take a decade to fully remedy. In the interim, we have seen the parallel presumed sanctity of take-or-pay contracts in the Washington Public Power System revenue bonds evaporate and many interstate gas pipelines or other good faith project investors will stumble over a change in both economics and politics.

The FHLMC-PC, despite these occasional qualms, had been a useful, but limited, source of mortgage financing until 1982. Last year these single family pass-under $17 billion to nearly $47 billion as the thrift industry, under new benevolent accounting, sought liquidity for its existing portfolios. The certificates, however, guarantee timely payment on only the interest and seem a security whose only periods of attraction will be a 1982 environment when deeply discounted, seasoned mortgages come into the pools and assure payout protection by the underlying asset value.

The even larger expanse of FNMA securities has been, until 1981, that of the more traditionally capitalized private corporation which it became in 1968 when it was partitioned from GNMA. The mix of its long-term debentures and short-term notes compared to mortgage portfolio characteristics has often varied in awkward and costly fashion. Yet, its ability to develop new marketing techniques, greater management depth, higher commitment fee income and to withstand the quasi-political currents flowing into its offices from Capitol Hill testify to its durability. It funded one in every seven mortgage originations in the U.S. in 1982, including a range of adjustable rate and second mortgages. These evidences of growth and flexibility may bring greater private pension fund investment flows, though perhaps from their equity managers who want the highly leveraged play on FNMA shares. Their new FNMA guaranteed pass-through certificates offered since December, 1981, already totaling over $14 billion, may compete well with GNMAs in benign interest rate climates, but still carry a risk which many managers will avoid if inflation and higher interest rates reemerge. Certainly, a FNMA shareholder equity of only 1.7% of year end 1982 mortgage portfolio principal balances is scant comfort after two years of pre-tax mortgage portfolio losses totaling nearly $1.1 billion.

steps away from the real or illusory comfort of government affiliated mortgage agencies, he has had few practical or prudent choices.

Private mortgage insurance was not truly tested during the recent recession, but its operating losses and subsequent fears could resurface if MGIC is scarred by the current Baldwin United financing controversy. In another direction, the over-collateralization approach of several mortgage-backed bonds marketed by banking groups in 1979-80 found limited reception and remain small, infrequently traded securities. Letters of credit as mortgage pool backing have a veneer of quality, but require intensive legal and financial review before passing a prudence test. Few managers will undertake this or risk it.

A token program for public sale by an investment firm of shared-appreciation mortgages (SAMs) in 1982 served primarily to illustrate the inherent risks of infringing upon the classic right of an American homeowner to preferential taxation, financing and retention of his entire house equity. It is improbable a corporate pension fund would risk the wrath of an individual home buyer who disputed the methodology, the dollars or even the right of a fund to claim some portion of home value. We have only to recall the turmoil in Buffalo when a bank's clear contractual right to increase interest rates during the mortgage life was overwhelmed by consumerism. Enforcing due-on-sale clauses in California and elsewhere also remind the institutional investor that his own profile is one of a top-hatted target, tempting to editorial snowballs. Few funds are ever likely to collect an adjustable balance mortgage whose principal has risen beyond public perception of fairness and payment moratoria are a risk of the 1980s if recession recurs.

What then is the conventional mortgage seeker to do to unlock pension fund manager vaults? Quite simply, exactly what

and tortuous administrative change of th past two years.

a) A political recognition that the free market cleared out the panic atmospher reversing the inflationary rise in home prices, encouraging savings flow to the thrift institutions, and accelerating the regulatory obstacle demolition which the SEC, DOL and other agencies had been unable to accomplish.

b) A more sober mortgage underwriting policy by the larger, surviving thrifts and mortgage bankers. It is the manager conviction that there will be no losses requiring insurance or guarantee action which is critical.

c) Investment banker participation in the loan financing sectors by marketing and financial professionals who approach pension funds on their own rational ground, rather than from a "social compact" viewpoint.

d) Recognition that the areas of adjustab rates, balloon payments, etc. need furthe standardization if they are to be priced and accepted widely for a fiduciary.

e) Willingness by homeowners to pay a higher proportion of income for their basi housing and some lesser speculation leveraging attitude as financial assets become more attractive.

f) A gradual understanding by pension fund managers through reeducation, seminars and a growing literature that *there is* a place for mortgages in their fixed income portfolio. A place based solely on yield or rate hedging and cash flow advantages, yet fully recognizing the underlying risks at least as well as they c a telephone company bond.

In 1982 a pension fund working group was created by HUD consisting of representatives of HUD, Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, Mortgage Bankers Association of America, National Association of Homebuilders, Salomon Brothers, Inc., First Boston Corporation, Merrill Lynch, MGIC, and Verlex. Additionally, representatives of corporate and multiemployer pension funds were asked to act as an informal pension fund sounding board. Leading executives representing Chrysler Corporation, United States Steel – Carnegie Pension Fund, Inc., American Telephone and Telegraph Company, and General Dynamics Corporation, an Administrator of the Carpenters Pension Trust Fund for Northern California and a Director of Financial Operations of the International Brotherhood of Electrical Workers among others agreed to lend their insight and comments as the Pension Fund working group developed suggestions for improving mortgage backed activities.

In the course of various working sessions some divergent opinions developed as follows:

With respect to mortgages as investments, both in the corporate area and multi-employer area, there was active discussion with respect to evaluating mortgage investments. The representatives of the corporate area indicated that their preference was mortgage backed certificates over whole loans. I believe that the concern in the corporate area went to the areas of (a) the difficulty in valuing whole loans for purposes of meeting the Financial Accounting Standards Board Regulation No. 35, and (b) their imagined problem with respect to servicing. I do not agree with the position taken by the corporate representatives, however, I appreciate their concern. I might add that I do not agree with Financial Accounting Standards Board Regulation 35 (herein-

involved with servicing. If a competent mortgage servicer is retained, generally speaking at a cost of one-quarter of one percent on the declining balance on single family residences, the Fund is relieved of the responsibility of all servicing and the mortgage servicer's errors and omissions insurance is on the line. In multi-employer funds this is the classic pattern of mortgage servicing on whole loans. I would note that the servicing fee on pass through certificates is substantially higher, at 44/100 of 1%.

Additionally, on the subject of mortgages as investments the corporate field felt more comfortable with seasoned mortgages by reason of the fact that their yield, shortened maturity, lessened interest rate risk and better value was attractive. Again, I do not agree. I feel that institutional investors, both corporate and multi-employer Taft-Hartley Funds, should address themselves to the improvement and development of the Nation's communities and stimulation and guidance in the housing industry to provide not only housing, but a suitable living environment. Additionally, consideration should be given to the well being of the construction industry, which cannot operate in a high interest rate environment and satisfy the needs of the American public. Seasoned loans do not accomplish this objective.

At this point in time it is obvious that the construction industry in the United States is in dire straits. This is a two-edged sword. There is a crying demand for housing that a great percentage of the American public cannot afford; and without a secondary or tertiary market FHA, GNMA, and VA cannot cope with the problem. There is a tremendous fund of money available in the corporate and multi-employer pension field to accommodate the desperate need of housing in the United States.

At one of the meetings in the autumn of 1982, there was further discussion with respect to conventional mortgages and

indicated that they perceived in them an element of risk that they have difficulty in quantifying. They also indicated that ***beyond cash flow*** and reinvestment risk there is also considerable concern about the viability of any guarantees other than the United States' full faith and credit. I do not agree with the position taken by the corporate representatives on the element of risk. If proper underwriting is undertaken the element of risk is de minimis. I do agree that FNMA and FHLMC are undercapitalized, but I do not believe that there is a serious problem with respect to private insurers; and while I do not wish to "tout" any individual private insurer, I feel that MGIC is as secure if not more so than any other private insurer, although I will agree that the full faith and credit of the United States obviously exceeds that of MGIC.

In this regard I think that the corporate field has neglected to recognize the cash flow aspects of whole mortgages vis-a-vis pass through certificates. In the whole mortgage field the cash flow is dramatic in that the institutional investor is receiving not only principal and interest on a semi-monthly basis, but additionally has an element of payoff when individual borrowers choose to upgrade the quality of their residential property.

With respect to the above, some of the participants in the August, 1982 meeting saw uneven and unpredictable cash flows which make it difficult to accurately price mortgages and makes them an unsuitable investment for dedicated accounts (or, known pension fund liabilities). Obviously this relates to withdrawal liability under the terms of the Tax Equity and Fiscal Responsibility Act of 1982. I do not agree with respect to the uneven and unpredictable cash flows. In the Northern California Pension Plan situation we have experienced a level of cash flow involving principal, interest, and payoffs and that cash flow has not varied over the last 21 years, subject only to the dollar volume in payoffs and the fees charged on commitment letters on home whole loans (fees payable by mortgage bankers - originators) have exceeded all of our fees involving mortgage advisors and special mortgage legal counsel since the inception of our program.

Lastly in this category, in the area of cash flow, we have considered jumbo pools, not as a potential answer to cash flow problems but rather to encourage other institutional investors in the field of not only mortgage loans, but in our case purchase leasebacks, land leases, et al. We have never in any default situation had any serious negative effect with respect to change in cash flow, and as a matter of fact in every default situation (handled by the mortgage banker) have made a profit in the interest of the participants. Again, with respect to the cash flow issue, I disagree with the corporate representatives with respect to GIC programs in which they indicated that these contracts possess the certainty of large numbers. While they may possess the certainty of large numbers, I have the feeling that most of my Trustees and Investment Managers have the feeling that the fine print in the GIC contracts leaves something to be desired, and does not necessarily assist the building and construction industry.

There was further discussion with respect to jumbo pools as a potential answer to cash flow problems. We have made modest investments in jumbo pools, specifically the AFL/CIO Mortgage Investment Trust and Pension Investment Foundation; and are contemplating investments in the AFL/CIO Housing Investment Trust. These investments, modest as they are, but profitable, were really made by to show our support since we have our own vehicles in the real estate field.

At the August 1982 meeting at HUD discussion was had with respect to new instruments, adjustable rates and growing equity type mortgages. There was concern about the risk of default, particularly in the area of balloon payments and shared appreciation mortgages (SAM's). I think that there was unanimity of opinion by the group with respect to balloon payments and shared appreciation mortgages. However, there was serious discussion with respect to seven-year maturities with a renegotiable rate at the then existing market rate. I believe it is fair to say that balloon payments and SAM's were unacceptable to the group.

Referring back to earlier remarks involving pension fund liabilities and withdrawal liability, and with respect to the issue of investment strategy, there was discussion with respect to a match-up of investments to liabilities. In the jargon of the trade this is generally referred to as dedicated portfolios. This issue has become of greater importance since the Tax Equity and Fiscal Responsibility Act of 1982 involving withdrawal liability. I have some sympathy in this regard as I agree fully with the view of maximizing cash and preventing the development of unfunded (vested) liabilities, particularly in view of the impact of the withdrawal liability aforementioned as it applies to a liability over and above what was collectively bargained in a Taft-Hartley Trust. On the other hand, in a properly managed mortgage portfolio, whether it be pass through certificates or whole mortgages I believe that alternatives other than a dedicated portfolio can be accomplished.

I recognize the fact that the entire thrust of the 1982 meetings at HUD was generally along the lines of mortgage backed securities, and I support this position. My one reservation is that mortgage backed securities do not guarantee union labor. The position of the Carpenters Pension Trust Fund for Northern California is to attempt to induce as many Funds, either corporate or jointly trusteed, to become involved in the mortgage and real estate field. We believe that this type of investment, as a portion of our portfolio, is exceedingly attractive from an investment and yield standpoint and benefits the participants, which is the *primary* dedication of funds. As a *secondary* consideration, which is apparently overlooked by the corporate field, is the recognition of the dire condition of the building and construction industry over the last three years, although it is now slowly improving. It should be emphasized that the well-being of the building and construction is a *secondary* consideration in keeping with the mandate of ERISA.

It seems to me that, notwithstanding disagreements set forth in this paper, all of the parties to one degree or another are attempting to work in the same direction. HUD is mandated to encourage satisfaction of housing needs, fair housing opportunities, and improving and developing the Nation's communities. The corporate and multi-employer representatives are dedicated to maximizing yield for the benefit of the Plan participants. The multi-employer representatives in the building and construction industry, as a *secondary* consideration, and, subject to the interests of the Plan participants, are also interested in creating an environment whereby all alternative markets can be developed to provide builders with the wherewithal to construct single family residences, thereby employing construction workers, and increasing the overall contributions to the various Funds. In this latter regard I think that it is important to note that it has been said that for every job in the construction industry there is a 3.9 multiplier effect throughout the Nation's employment patterns.

Introduction

One of the earliest mentioned problems in attracting pension fund investment to housing was the tangle of prohibitions in the regulations promulgated under the Employee Retirement Income Security Act of 1974. Many normal business transactions involving mortgages required time and expense to obtain individual exemptions from the Department of Labor. In recognition of this, HUD and the Department of Labor worked together on a series of actions, which Labor announced in 1982. The effect of those actions has been to clear the playing field for almost all normal business transactions involving mortgages.

On May 18, 1982 Labor took three actions to significantly ease restrictions on pension fund investment in housing (see appendix):

1. A class exemption (PTE 82-87) was given allowing pension funds to invest in residential mortgages eligible for GNMA, FNMA or FHLMC programs through independent fiduciaries, i.e. independent advisors or managers with responsibility for pension fund assets. A wide range of normal business transactions involving mortgage transactions such as direct acquisition of mortgages, receiving fees for services involving mortgages, and issuing commitments to purchase mortgages are included.

Prior to this, pension funds had to seek individual rulings from the Department of Labor approving proposed investments, even though the mortgages and procedures met clearly accepted standards. Now the normal range of mortgage transactions involving standard market mortgages are freely open for pension fund investments as long as they are made through an independent fiduciary.

2. An amendment to class exemption 81-7 was proposed to allow pension funds to invest in pools involving forward commitments to purchase mortgages and in pools consisting of second mortgages and second deed trusts.
This expanded the exemption which gave relief from ERISA's prohibited transactions and allowed employee benefit plans to purchase certificates issued by mortgage pool investment trusts when the pool sponsors, trustees or insurers are parties in interest. A party in interest is anyone who had a business relationship involving responsibility for fund assets.

Overall, the amended exemption now allows for normal business relationships between funds and pool issuers. Previously, the establishment of a business relationship making a pool sponsor or issuer a party in interest or a fiduciary would have prohibited any future relationships.

3. Plan assets for GNMA, FNMA and FHLMC pools were redefined, so that the MBS certificates are considered the assets, not the underlying mortgages. Otherwise, in relation to a pool of mortgages, the assets are considered to be the mortgages. This eliminated conflict of interest problems in regard to these pools.

The redefinition eliminates all prohibited transaction and conflict of interest concerns that might be related to the underlying mortgages in the case of pools sponsored or issued through these organizations, i.e., the predominant part of the secondary market.

In a further movement the Department of Labor is considering a redefinition of plan assets for private mortgage-backed securities. The definition being considered would accept the private certificate as the plan asset, rather than the underlying mortgage, under certain conditions: when not more than half the pool is owned by pension funds; or, when pension funds own 50 to 80 percent of an issue, as long as no single plan owns more than 25 percent of that pool.

In December of 1982, the Department of Labor proposed a class exemption for transactions involving Qualified Professional Asset Managers (QPAMs) which would otherwise be prohibited. The QPAM exemption would apply to banks, insurance companies, or registered investment advisors that are subject to regulation by Federal or State agencies and meet some additional conditions, among which are the following:

1. A written agreement or contract outlining its authority over plan assets and acknowledging that it is a fiduciary.

2. The QPAM must have actual discretion which might cause a plan to make a transaction otherwise prohibited; and must be the decisionmaker for the transactions to be covered.

3. The QPAM and a party in interest dealing with the fund must not be related parties.

The Department of Labor has also made an extensive effort to communicate widely concerning its interpretation of the "Prudence" rule, which allows for any investments which are justifiable on market considerations. This approach is much more flexible than those to which many pension funds are accustomed. Such funds may be still pursuing more conservative courses than the Department of Labor would permit.

In this section, the Department of Labor Administrator for Pension and Welfare Benefit programs, Jeffrey Clayton, describes the principles involved in the Department's interpretation of the Prudence rule. In addition, there are a variety of questions typical of those asked at the conferences to which Mr. Clayton's office has provided extensive answers. Stuart Lewis, of Silverstein and Mullens provides an overview of the impact of the ERISA changes.

In response to the Department of Labor actions and interpretations, there is an extended discussion by Jeffrey Mamorsky, a partner in the law firm of Shea and Gould, who has had extensive experience with ERISA. He critically assesses the impact of the ERISA changes and proposed changes, raises some searching questions about the standards of the Prudence Rule, and proposes some additional actions. Mamorsky challenges the interpretation of the Prudence Rule which prohibits arrangements yielding "below market" returns, even if those returns exceed the yields needed to meet funds' actuarially determined needs. In addition, he questions the need to prohibit arrangements which might provide services to fund participants before retirement through lower rate loans. Mamorsky also calls for extension of the granted class exemptions to multifamily loans, and a wider extension of the QPAM exemption

The Department of Labor is, in fact already acting in many ways to meet criticisms of the kind raised by Mamorsky. Currently under review are options for extending the class exemptions for mortgage transactions to multifamily projects. The limitations of loan value of mortgages which are implicit in the exemptions given for mortgages meeting GNMA, FNMA and FHLMC standards are also being reconsidered. The ground which is yet to be covered, however, should not distract us from the fact that the overwhelming proportion of mortgages and mortgage pool transactions are now covered by class exemptions which make pension fund investment in such instruments part of the normal business day.

(ERISA) documented that while most pension plans had been managed with integrity and competence, there had been serious examples of negligent or abusive conduct by those entrusted with the care of benefit plan assets.[1] These problems were compounded by the fact that participants and beneficiaries were left to the traditional remedies of State statutory and common law, where the terms of the trust instrument usually took precedence over any general standards of prudence, exculpatory clauses were valid and the results lacked uniformity among the States. ERISA's remedies for this situation were the fiduciary responsibility provisions - specifically, the prudence rule and the prohibited transaction provisions - and access to the Federal courts by aggrieved parties. Participants and beneficiaries now are protected by ERISA's prudence rule, the flexible guidance of the Department of Labor's regulatory interpretation of that rule, and the availability of the Federal judiciary to ascertain prudent behavior in specific cases.

Section 404(a)(1) of ERISA requires that fiduciaries deal with a plan's assets "with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims" and for the exclusive purpose of providing plan benefits. While those industries that have been outbid for scarce investment dollars have increasingly been blaming these requirements for our balance of trade deficit, the loss of high-tech industries and jobs, and the slump in housing and construction, a thoughtful analysis of the law should reveal that these requirements, in fact, provide plan fiduciaries with great flexi-

plan assets reflects the market, that is, the investment decisions made by careful, skillful, prudent and diligent investors in the aggregate. There is no artificial channeling of pension monies, nor should there be.

The prudence and exclusive purpose requirements, as we shall refer to them, simply stated, call upon a plan fiduciary to act in a manner consistent with appropriate consideration of the facts and circumstances relevant to the individual plan and the particular investment. Among the factors for consideration are the diversification, liquidity and funding objectives of the plan and the characteristics of the investment itself.[2] In this regard, an investment reasonably designed - as part of the portfolio - to further the purpose of the plan is not imprudent merely because the investment, standing alone, would have, for example, a relatively high degree of risk.

The flexible standard of this regulation represents a departure from the prudence rule as applied to a trustee under common law in some jurisdictions, where the prudence of each investment is determined alone without regard to the role that investment plays in the portfolio.[3] It is also more permissive than the rules and guidelines applied by Federal banking authorities in their oversight of the fiduciary activities of national banks under which it is considered inappropriate or improper for fiduciaries to invest in second mortgages, partnerships, land or speculative assets.[4]

between the interests of the income beneficiary and that of the remainderman of a common law trust. Thus, the goal of a competent trustee was the preservation of the corpus and the generation of a reasonable amount of income payable with regularity. The relevance of these goals to ERISA plans is not clearcut. In some cases the generation of income will be far more important than the preservation of the corpus, and there are a number of other considerations peculiar to pension plans that must be incorporated into any investment strategy. Thus, a primary rationale for judging the prudence of each investment alone, without regard to its role in the total investment portfolio, does not exist under ERISA.

The requirements incorporated into the Department of Labor's prudence regulation do not impose any specific constraints upon plan fiduciaries. They allow plan fiduciaries the flexibility needed to design investment strategies for a variety of plans in changing economic climates. It is essential to preserve this flexibility because there are nearly 500,000 private pension plans in this country. Investment needs will vary with the size of the plan, the age of its participants, the nature of the employer's industry and the type of benefit provided. Needless to say, a portfolio appropriate for a growing business's profit sharing plan whose average participant is in his or her thirties could be inappropriate for a declining industry's guaranteed benefit plan whose average participant is nearing retirement age. Plan fiduciaries are in a better position to determine investment strategies for plans than Congress or the Department. They know the characteristics of the plans for which they are responsible, and they have more immediate knowledge of available investments.

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[1] *120 Cong. Rec. 29951 (1974).*

[2] *29 CFR 2550.404a-1*

[3] *See Scott Law of Trusts* § 227 (3d ed)

[4] U.S. Comptroller of the Currency, Handbook for National Trust Examiners, Precedents and Opinions, "Investment Policy" (1982).

Furthermore, the rule's flexibility permits consideration of all investment opportunities. No reasonable type of investment is ruled out. Nor is there any prohibition on the consideration of nonfinancial objectives, so long as all investments are made for the sole purpose of providing plan benefits to the participants and beneficiaries. Thus, a fiduciary's decision to make a loan, for example, may be influenced by a desire to help a local industry if the loan, when judged solely on the basis of its economic value to the plan, would be equal or superior to alternative investments available to the plan.

Changes in the flexibility of the prudence rule such as substituting specific standards or requirements for purposes other than furthering the growth and security of plan assets would be dangerous and probably inconsistent with the statute. Once in place, either by regulation or by legislation, specific guidelines would be difficult to change even if the perceived need for them disappears or their effect is negative. The economic volatility of the past decade warns us that rigidity and specific guidelines or requirements are inappropriate in the arena of prudent investment management, where the response to changing economic conditions must be expeditious.

Federal encouragement for specific types of investment incorporated into the prudence requirement is unnecessary. If an investment is worthwhile, intelligent plan fiduciaries will recognize it and take advantage of the opportunity, secure in the knowledge that the prudence requirement is satisfied if the investment has been carefully considered in light of the appropriate facts and circumstances. If this encouragement were in the form of a percentage of plan assets exception to the prudence requirement, it could create a safe harbor for lazy or incompetent investment decisions.

Federal direction of plan assets into specific areas to achieve nonplan objectives runs counter to the basis of Federal regulation of private employee benefit plans, which is to permit plan fiduciaries to make all the major decisions with respect to plan establishment and operation as long as certain minimum basic standards are complied with. Greater Federal involvement in investment decisions would impede and contort the free market allocation of resources. It would also politicize what should be objective financial decisions. Moreover, it would put the government in the position of forcing private plans to forego investment returns to achieve political goals. The retirement security of millions of Americans should not be sacrificed to achieve the political goals of particular groups with enough political muscle to force plans to forego returns in order to satisfy a federally-supported nonplan purpose. All plan assets are precious to plan participants and beneficiaries. All investments therefore, ought to be prudent and made exclusively for their benefit.

Finally, the establishment of Federal standards of prudent investment behavior is also a judicial function whereby thoughtful interpretations and guidance will develop as the law is applied to specific situations. Generalized attempts to define this area more specifically are inappropriate because regulators and legislators cannot craft requirements universally applicable to such a diverse population of plans.

In the brief time I have available for my remarks I would like to focus on two issues that are central to the question of pension plan investments in residential mortgages. The issues are the *why* and the *how* of such investments. That is, *why* should a pension fund seriously consider investments in residential mortgages and, if a plan wishes to make such investments, *how* should it go about making those types of investments. The answer to the why question is largely a question of economics. The answer to the how question has become, in substantial part, largely legal although the answer to that also should be a question of economics.

Why should a pension or profit sharing plan consider making investments in residential mortgages? The answer simply is that because it is a very suitable investment for pension and profit sharing plans and because the investment produces a very high stable yield for the benefit of plan participants. The principal duty of an investment manager, trustee or other person assigned the responsibility of investing plan assets is to invest those assets in a prudent fashion that will protect the employees' pension rights. While that is not exactly the way the prudent man rule is stated in ERISA, that is certain the thrust of the prudent man rule. I will comment more specifically on the prudent man rule at the end of my remarks.

Given this general investment responsibility, a review of mortgages will clearly demonstrate that mortgage instruments are a particularly suitable form of investment to accomplish those goals. Mortgage instruments of various types have five major features that make them particularly suitable investments for pension plans:

1. Security and Stability. Numerous statistical studies have found the security of mortgages to be very high. In providing this type of security, mortgages provide protection for retirement benefits and therefore accomplish one of the principal aims that those investing plan assets want to accomplish.

2. Long-Term Investment. It is appropriate for pension plans to seek long-term stable investments. Pension plans themselves are long-term programs. Consequently, it is appropriate for plan investments to also be long-term investments that match the principal purpose of the pension program.

3. High Cash Flow. Mortgages produce a high cash flow which substantially assist in meeting liquidity needs of the plan for distributions, payment of expenses and so forth.

4. Liquidity. A strong secondary market is available for mortgages and if a plan desires to dispose of mortgages before their maturity it can generally do so. For most plans, however, holding mortgages until maturity may be advisable.

5. High Yield. Mortgages provide a very high yield - especially high when compared with other forms of debt instruments and equity investments. At a minimum, most mortgage investments will far exceed the actuarial assumptions required in order to keep the plan financially stable.

Historically, studies have shown that mortgages are probably one of the best investments available, especially for pension plans. A recent study based on statistics from the Federal Reserve Board, FNMA and the FHLBB, confirm that mortgages have been substantially better investments over both the last 10 years and over the last five years than corporate bonds, treasury bills, treasury bonds, and common and preferred stocks. This study indicates, for example, that over the 10 year period from 1970 to 1980, the average yields on mortgages were almost 19 percent better than the average yields on the second best alternative form of investment. Over the last five years the rates of return were generally higher but the differential remained approximately the same.

I would certainly not deny that the current market situation is unusual and chaotic. Some may say historical comparisons are of little value in today's volatile markets. On the other hand, I believe that in time we will return to these historical patterns. If so, these fundamental relationships will prevail over the next 10 year period as they have over the last 10 years.

Turning now to the question of how to invest in mortgages, the answer is similarly simple - either directly or indirectly. The decision of how to invest in mortgages should be an economic decision. Plans should balance the various features of different investment alternatives and reach a decision based on the most economically sound form of investment. Unfortunately, ERISA has, especially in the past, created legal problems that have affected the decision of how to invest. These problems have centered principally on two of the major features of ERISA - the prohibited transaction rules and the prudence requirements. These problems have, however, now largely been solved so that plans can find simple methods of investing in mortgages that will avoid any difficulty with prohibited transaction problems and that should likewise have no difficulty satisfying the prudence requirements of ERISA.

Numerous types of mortgage investments are available to plans. Large plans may find one type of investment more suitable while small plans may find another type of investment more suitable. Regardless of the size of the plan, however, there is enough variety in the types of investments available so that any plan should be able to find a suitable mechanism for investment in mortgages or mortgage-backed instruments.

For purposes of my remarks I will touch on five basic forms of mortgage investments available:

1. ***mortgage pools;***
2. ***mortgage-backed certificates;***
3. ***direct ownership;***
4. ***participation interest; and***
5. ***other types of pools.***

Mortgage pools are an increasingly common method of investing in mortgage-backed instruments. The Department of Labor has, through the issuance of Prohibited Transaction 81-7, made it clear that a mechanism is available for investing in mortgage pools without any fear of violating the ERISA prohibited transaction rules. The Department of Labor has recently proposed an expansion of Prohibited Transaction 81-7 so that the mortgage pools can include second mortgages as well as first mortgages and so that forward commitments can be utilized in connection with the establishment of mortgage pools.

While Prohibited Transaction 81-7 clearly provides a mechanical safe harbor under which plans can invest without fear of prohibited transactions, it should not be assumed that the requirements of Prohibited Transaction 81-7 must necessarily be followed to investment in mortgage pools. Numerous other pooling arrangements have been established that I understand largely eliminate any risk of prohibited transactions. Plans wishing to invest in these pools should review their structure but in all probability will conclude that the prohibited transaction risks associated with these other pools are minimal. In fact, the other pools may even produce a higher rate of return since they do not have to comply with the requirements of Exemption 81-7.

Another type of investment is the government mortgage certificate. The not addressed is other types of certificate. Because the regulations do not address this issue, it is still unsettled. Even if the underlying assets, that is, the mortgages, are deemed to be plan assets, it does not necessarily follow that these types of certificates create prohibited transactions or other problems under ERISA, however.

The ability to make direct investments has been largely enhanced with the issuance of Prohibited Transaction Exemption 82-87. Like Exemption 81-7, it provides a mechanical safe harbor under which plans can invest with no fear of having committed a prohibited transaction. Also like Exemption 81-7, it is not necessarily the exclusive method for making this form of investment. Plans can make direct investments in mortgages without complying with Exemption 82-87 and still not commit prohibited transactions or otherwise violate ERISA.

Exemption 82-87 also endorses the use of participation in mortgages and other forms of pooling arrangements, indicating that there is probably no prohibited transaction problem with either of these other alternative methods of investment. Finally, I wish to note that Exemption 82-87 says nothing about the yield or interest rate that must be obtained - only that the purchase from the originator must be at fair market value.

The final remarks I would like to make concern the prudence requirement. Now that the prohibited transaction concerns are largely eliminated, the main ERISA focus is on the prudence requirement, i.e., the necessity of investing as a prudent person and obtaining diversity of investments. Diversity should not be a problem. Most plans have such a low investment in residential mortgages that a 10- or 10-fold increase would still clearly be diverse within the meaning of ERISA. Also, it should be recognized that diversity is a multi-faceted concept and may not be applicable to mortgages in the same sense that it is applicable to stocks and bonds.

The prudent man requirements can largely be viewed as a question of the interest rate obtained in the case of mortgages. Mortgages are highly secure and should otherwise meet all the prudence requirements. In my view, the interest rate only has to be a reasonable interest rate. It does not have to be the maximum possible interest rate available. Imprudent investment issues typically only arise if the investment turns out to be an *astrocious* investment. While courts deny it, they routinely use hindsight analysis to examine the investment return to determine whether it is prudent or not. The courts also show a great reluctance to substitute their judgment for the judgment of the trustees as long as there is any indication that the trustees were acting in a reasonable fashion. The recent litigation over the Gruman plan's purchase of its own company stock has been a clear example of the reluctance of the courts to use the prudence rule in any but the most extreme situation.

In conclusion, the answer to why should plans invest in mortgages is because they are a good investment and the answer to how they should invest is there are a multitude of ways to invest and that the investment selection should be based principally on economic factors since the legal problems are largely solved.

ment by pension funds in mortgages and mortgage-backed securities - is indeed a formidable task.

Pension fund managers need to be made more aware of the quality of mortgage investments as well as the restrictions imposed by ERISA. This is a challenging hurdle which must be overcome in order to create a more favorable climate for mortgage investments.

As pension money managers, I assume that you are already familiar with ERISA's fiduciary responsibility and prohibited transaction provisions.

Consequently, I will focus my remarks on:

1. Several actions the Labor Department took this past year to encourage pension fund investments in residential mortgages;

2. Whether or not these actions aimed at easing the restrictions on pension investments in mortgages really have worked; and

3. Where we should go from here with particular emphasis on the interpretation of ERISA's "Prudent Expert" standard as it relates to mortgage investments?

The general fiduciary responsibility and prohibited transaction provisions of ERISA have a direct impact on mortgage transactions that involve the assets of employee benefit plans.

As with any investment transaction, fiduciaries who involve a plan in a mortgage transaction must do so in accordance with their general fiduciary responsibilities.

You will recall that under ERISA a person is a fiduciary with respect to a plan to the extent that the individual:

A. Exercises any discretionary authority or discretionary control in the management of the plan; or

C. Renders investment advice for a fee with respect to any moneys or other property of the plan, or has any authority or responsibility to do so; or

D. Has any discretionary authority or responsibility in the administration of the plan. Obviously, pension fund managers are ERISA fiduciaries. However, even mortgage bankers, who in the normal course of their operations would not be serving in a fiduciary capacity, would be fiduciaries if, for example, they provided investment advice to a plan for a fee or exercised any discretionary control over the disposition of plan assets. It should be kept in mind that this activity of a mortgage banker would be over and above the mere packaging and submitting of a loan transaction to a potential money source, even if that process could be deemed inherently the recommending of the transaction or the giving of advice on the transaction.

As you know, ERISA fiduciaries are required to discharge their responsibilities with respect to the plan:

1. Solely in the interest of the plan's participants and beneficiaries and for the exclusive purpose of providing benefits to participants and beneficiaries;

2. With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims;

3. By diversifying the investments of the plan so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so; and

4. In accordance with the documents and instruments governing the plan, insofar as they are consistent with the provisions of ERISA.

resulting loss to the plan and can be removed as a fiduciary. It should be noted, however, that an individual is only a fiduciary with respect to those plan assets over which he or she has authority, control, or influence. Therefore, a person's fiduciary duties generally extend only to the handling of those assets.

However, of more direct importance to those of you who are involved with employee benefit plans are the Prohibited Transaction provisions of ERISA and the Internal Revenue Code. Those provisions prohibit the direct or indirect:

1. Sale, exchange or leasing of property between the plan and a party in interest;

2. Lending of money or other extension of credit between the plan and a party in interest;

3. Furnishing of goods, services or facilities between the plan and a party in interest; or

4. Transfer to, or use by or for the benefit of, a party in interest of any plan assets.

The term "party-in-interest" is a broad concept which includes:

1. Any fiduciary, counsel or employee of the plan;

2. A person providing services to the plan;

3. An employer whose employees are covered by the plan;

4. Any owner of a 50 percent interest in such employer; or

5. A union whose members are covered by the plan.

Since a mortgage transaction is often complex, involving many parties and various sales, exchanges, services, extensions of credit, and transfers of assets, it is not unusual for a prohibited transaction violation to occur. For example, a mortgage banker who is servicing mortgages on behalf of a plan is, of course, a party in interest under ERISA and a disqualified person under the Internal Revenue Code. Any subsequent financing commitment from the plan to the mortgage banker in exchange for a commitment fee, or any subsequent purchase or sale of mortgages between the plan and mortgage banker could be claimed as violations. Similarly, if the proceeds from permanent financing provided by a plan are used to pay off a construction loan from a servicing mortgage banker, a violation arguably may occur. Both of these fact situations are examples of how unnecessarily constraining regulations may be unfortunately interpreted or misinterpreted and carried to illogical extremes by regulators and practitioners. Unfortunate, because the net effect of this process of thought and action is that plan participants may be precluded from enjoying the fruits of perfectly secure and reasonable investments which are open to and customary among members of the non-ERISA investing community.

Under ERISA, a fiduciary who causes a plan to enter into a prohibited transaction can be held personally liable for any resulting loss to the plan. Also, of particular importance to ERISA fiduciaries and possible parties in interest such as mortgage banking organizations, are the nondeductible excise taxes imposed by the Internal Revenue Code on disqualified persons who engage in prohibited transactions with a plan. These taxes can be imposed whether or not the plan suffers any loss as a result of the transaction, and can amount to 100 percent of the amount of the plan assets involved in the transaction if the transaction is not corrected. Even if such a transaction is corrected, the disqualified person is subject to a 5 percent tax.

However, ERISA authorizes the Depart- indicated earlier, the Department of Labor has encouraged pension fund investments in mortgages by granting certain individual exemptions covering a particular plan or plans and class exemptions covering all plans and classes of transactions.

Up to this date, the Department of Labor has granted over half a dozen individual exemptions that permit particular multi-employer plans in the construction industry to engage in comprehensive mortgage lending programs. Several of these programs are limited to mortgages covering single-family homes. The exemptions generally permit loan commitments to and the purchase of mortgages from mortgage bankers and other financial institutions who are service providers to the plans. They also permit the purchase of mortgages covering structures built by contributing employers. They generally do not allow a plan to purchase a mortgage if the borrower is a party in interest of the plan.

In May of last year the Department granted a class exemption covering certain single-family residential mortgages (PTE 82-87, 47 F.R. 21331, 5/18/82).

The financing arrangements covered by the exemptions are limited to "recognized mortgage loans" for purchase of a "residential dwelling unit." A "recognized mortgage loan" is defined as any mortgage loan on a "residential dwelling unit" which, at the time of its origination, was eligible through an established program for purchase by the Federal National Mortgage Association ("FNMA"), the Government National Mortgage Association ("GNMA") or the Federal Home Loan Mortgage Corporation ("FHLMC").

The transactions exempted from the prohibited transaction provisions of ERISA are:

1. The issuance of a commitment by one or more employee benefit plans to provide mortgage financing to purchasers of resi-

4. The sale, exchange or transfer of a mortgage loan or participation interest whether or not acquired pursuant to the exemption, provided that the plan's entire ownership interest in such is sold, exchanged or transferred.

However, these exempted transactions are subject to certain conditions both on a retroactive and prospective basis. Among the conditions for retroactive relief are:

1. That any mortgage loan or participation interest acquired therein must be a "recognized mortgage loan" as defined above;

2. That any such "recognized mortgage loan" must be originated by an "established mortgage lender" and neither the plan nor plan sponsor (e.g., an employer or union any of whose members are covered by the plan) has the power to exercise a controlling influence over the mortgage lender's management or policies;

3. That the price paid or received by a plan for the issuance of a commitment to provide mortgage pricing must be at least as favorable to the plan as the price in a similar transaction involving unrelated parties; and

4. That no person who is involved in the development or construction of the residential dwelling units, or is the owner of a mortgage or participation interest therein which is subsequently sold to the plan has any discretionary authority or control or has rendered any investment advice that would make that person a fiduciary with respect to the plan.

The class exemption also provides that transactions entered into after June 16, 1982, must meet all of the conditions for retroactive relief *plus:*

power to exercise a controlling influence over the real estate manager's management or policies; and

2. Certain records are kept by the plan which enable the Department of Labor and other specified persons to determine whether the conditions of the exemption have been met.

As a result of this class exemption, the prohibited transaction provisions of ERISA should not be an impediment for transactions involving "recognized mortgage loans" - that is, mortgages eligible through an established program for purchase by FNMA, GNMA, or the FHLMC. Multiple-unit rental structures are eligible for purchase from these governmental agencies. Yet PTE 82-87, does not permit the acquisition by a plan of mortgages on these types of property. At a time when such property is becoming scarce and might be regarded as an attractive investment by a plan's investment advisors, the Department should reconsider the exclusion of loans made on such property from the "recognized mortgage loan" definition.

Transactions not involving "recognized mortgage loans" are of course not covered by the class exemption. Also, the class exemption does not eliminate the fiduciary self-dealing sanctions of the prohibited transaction provisions. That is, a transaction which involves a conflict of interest on the part of a fiduciary who is acting as such with respect to the transaction is still prohibited.

Along with the class exemption for "recognized mortgage loans", the Department of Labor also issued in May of last year a final plan asset regulation relating to governmental mortgage pools.

The final regulation provides that since investments in governmental mortgage pools are guaranteed by a government agency or government-sponsored corporation, the underlying mortgages in such investments will not be considered plan assets solely because a plan may acquire an interest in a mortgage as an incident of its investment in the pool.

The sponsor or manager of a governmental mortgage pool would not be a plan fiduciary merely by reason of the plan's investment in the pool. Interests in FHLMC, GNMA, and FNMA mortgage pools are listed among the investments that are covered by this regulation.

In January 1983, the Department finalized amendments to the class exemption on mortgage pool investment trusts issued in January of 1981 (PTE Class Exemption 81-7 as amended by PTE Class Exemption 83-1, 48 F.R. 895, 1/7/83). That exemption allowed - under specified conditions - certain transactions and acquisitions otherwise prohibited by ERISA and the Internal Revenue Code related to transactions between plans and parties in interest involved in the organization, servicing, and administration of mortgage pool investment trusts and the acquisition of certain mortgage-backed pass-through certificates.

For those of you not familiar with the term, the class exemption defines a "conventional mortgage pass-through security" as a certificate representing a fractional undivided interest in a mortgage pool investment trust, the assets of which consist of a pool of conventional mortgage loans secured by first mortgages on owner-occupied, single family properties (further defined as non-farm property composed of one-to-four family residential unit dwellings including condominiums).

Also, under PTE 81-7, the trustee of the pool and the sponsor are required to maintain some credit support device for protecting the pooled loans, the property securing the loans and insuring certificate holders against reductions in pass-through payments due to defaults in loan payments or property damage. The trustee for the pool must be unaffiliated with

Payments made to or retained by a sponsor incidental to the sale of the mortgage loans to the pool together with compensation paid to the sponsor for servicing and adminstering the pool must be the fair market value of such loans and services.

Finally, PTE 81-7 provides that a pool sponsor, servicer, insurer, or trustee of a mortgage pool in which a third party invests, will not be prohibited from providing other, unrelated services to the certificate holder or a related entity simply because the sponsor, servicer, insurer, or trustee is technically a party in interest to the investor solely because of its relationship to the mortgage pool. This aspect of the exemption is critical to financial institutions engaged in mortgage-backed pass-through programs.

The amendments to PTE 81-7 issued in January of this year expand the coverage of the class exemption to include pools consisting of loans secured by second mortgages and commitments by investing plans to purchase pool certificates in certain circumstances.

Also, under these amendments, the prohibited transaction restrictions do not apply to the direct or indirect sale, exchange, or transfer of certificates in the initial issuance of the certificates between the sponsor of a mortgage pool and an employee benefit plan when the sponsor, trustee, or insurer of the pool *is a party in interest* as long as the plan does not pay more than fair market value for the certificate and the rights and interests of the certificate are not subordinated to the rights and interests of other certificates of the same pool. The exemption also provides that the prohibited transaction restrictions do not apply to the continued holding of the certificate by an employee benefit plan.

Where the mortgage pool sponsor, trustee or insurer of the pool *is a fiduciary* with respect to those plan assets invested in the mortgage-backed certificates, the to the sale, exchange or transfer of such certificates between the plan and the pool sponsor provided that: (a) the sale, exchange or transfer is approved by an independent fiduciary; (b) the plan pays no more for the certificates than would be paid in an arm's length transaction with an unrelated party; (c) no investment management, advisory or underwriting fee or sales commission is paid to the pool sponsor with respect to the sale of the certificates; (d) the total value of the certificates purchased by the plan does not exceed 25% of the amount of the issue; and (e) at least 50% of the aggregate amount of the issue is acquired by persons independent of the pool sponsor, trustee or insurer.

PTE 81-7, as amended by PTE 83-1, provides relief from the prohibited transaction restrictions of ERISA so as to permit the sale, exchange or transfer of certificates evidencing a beneficial interest in a pool of mortgage loans on single family dwelling units, between a plan and the sponsor of the pool where the pool sponsor or pool trustee is a party in interest. At least two applications for individual exemptions have been granted by the Department to date involving the sale of certificates evidencing a beneficial interest in a mortgage pool consisting of mortgages on multifamily dwelling units. In the absence of any evidence that mortgages covering multifamily dwellings involve greater risks to an investing plan than mortgages covering single-family dwellings, the Department nonetheless refused to expand the relief granted in PTE 81-7 when it issued PTE 83-1. PTE 83-1 incidentally was issued after the two individual exemptions just referred to were granted by the Department. The representations made by the applicants indicated that the multifamily dwelling units involved were insured by the FHA. I suggest to you that mortgages on single-family dwelling units are not inherently safer investments units and that the Department's position in this regard which forces an applicant to spend considerable time and money to obtain an individual exemption is not in the best interests of plan participants and beneficiaries. In fact, a plan could be deprived of attractive investment opportunities represented by security interests in multifamily housing during the period of time required for the Department to rule on the exemption application.

PTE 81-7, as amended by PTE 83-1, also provides that where the pool sponsor or trustee is a fiduciary, relief from the prohibited transaction rules is available for the sale, exchange and transfer of certificates to the plan and the sponsor, but only if the plan purchases no more than 25% of the initial issue of such certificates, and at least 50% of the aggregate amount of the issue is acquired by persons independent of the pool sponsor or trustee. I suggest to you that these conditions are unnecessary and burdensome. First of all, let us suppose that an FHA-approved mortgagee has for several years rendered investment advice to a plan but has not sold any FHA-insured mortgages or certificates of beneficial interest in a pool of FHA-insured mortgages to the plan. Now the FHA-approved mortgagee who is a fiduciary makes an attractive proposal to the trustees of the plan to sell all of the certificates of interest in a pool of mortgages on multifamily dwellings it purchased as a result of successful bids at a GNMA auction. I think we all would agree that the mortgages acquired through GNMA are very safe, relatively high yielding investments. The trustees view the acquisition of certificates as a safe and prudent investment, approve the transaction and the plan purchases the certificates. However, several prohibited transactions have occurred for which no statutory or class exemptions exist even though the trustees are satisfied that they have made the best possible investment for the plan, its participants and its beneficiaries. If the trustees and could have taken the following action. The fiduciary could have severed its fiduciary ties with the plan, becoming only a party-in-interest by virtue of the sale of the certificates to the plan and the servicing of the mortgage pool. Severing the fiduciary ties would permit the sale of 100% of the initial issue of the certificates to the plan. But this is not enough. A prohibited transaction would still have occurred because the mortgages in the pool cover multifamily dwellings. Thus, an application for an individual exemption would still have to be made to the Department.

"QPAM" Exemption

In December of last year, the Department proposed a very broad class exemption for plan asset transactions determined by independent qualified professional asset managers ("QPAMS"). If granted, such an exemption will cover many types of mortgage loans not covered by the "recognized mortgage loan" class exemption discussed earlier.

As proposed, the class exemption would be available for various party in interest transactions that involve those assets of plans that are transferred for discretionary management to qualified professional asset managers (QPAMs). A QPAM is defined as a bank, insurance company or registered investment advisor that meets certain financial conditions and is subject to regulation by Federal or State agencies.

Under the proposed exemption, a financial entity would not achieve QPAM status with regard to a plan unless it enters into a written management agreement or issues a contract that delineates its management authority over plan assets and contains a statement acknowledging that it is a fiduciary. Also, the Department will grant exemptive relief only where an independent asset manager has, and in fact exercises, discretionary authority to cause a plan to enter are negotiated by, e.g., an employer plan sponsor, and are then presented to a QPAM for approval would not qualify for the proposed exemption. However, the exemption would be available even though the transfer of assets by a plan to a QPAM is subject to general investment guidelines, so long as there is no arrangement, direct or indirect, for the QPAM to negotiate, or engage in, any specific transaction or to benefit any specific person.

The proposed exemption also requires that the QPAM function as the decision maker of the investment fund for all covered transactions. In general, the terms of the transactions are to be negotiated by the QPAM. However, specific transactions may be affected by a person or entity that acts under the authority and general direction of the QPAM. Except as permitted in a limited special exemption for leases of office space, a QPAM or its affiliate may not enter into transactions with an investment fund which it manages. Moreover, the exemption would not be available if the QPAM and the party in interest dealing with the fund are related parties. A party in interest and QPAM would be "related" if either entity owns a five percent or more interest directly or indirectly in the other entity.

Also, it is the Department's view that a plan (and its sponsor) which provides a significant portion of the QPAM's business as a manager of plan funds would, in many cases, be in a position to improperly influence investment decisions of the QPAM. Accordingly, transactions with parties in interest of a plan would not be covered if the amount of the plan's assets that are managed by a QPAM together with the assets managed by the same QPAM that are attributable to other plans maintained by a common sponsor (or its affiliate) represent more than 10 percent of all employee benefit plan assets under the management of the QPAM.

A special exemption would permit transactions involving the furnishings of goods

transactions are necessary for the administration or management of the fund and take place in the ordinary course of business. The proposal requires that no more than one percent of the party in interest's annual gross receipts from all business sources may be attributable to transactions engaged in under this special exemption.

Another special exemption would permit the leasing of office or commercial space by a pension fund to a party in interest if the unit of space under the lease is suitable for use by different tenants and does not exceed 15 percent of the rentable space of the office building or commercial space.

Will the Proposed QPAM Exemption Really Work

(1) Qualification Requirements

It would appear that the QPAM criteria of having total client assets under management and control of $50,000,000 is designed to test whether a securities or fixed income manager may qualify and is not actually compatible with operations in the real estate and mortgage industry. Real estate investments, by their nature, are longer-term and are generally not actively traded on a day-to-day basis. Unlike the securities manager who maintains an active portfolio, the real estate advisory function normally ceases with respect to a given transaction, and other than a possible servicing function may not require further involvement by the manager for a number of years. Consequently, the test of having total client assets under its management and control of $50,000,000 would appear to be less relevant than criteria which would evidence that the manager has advised clients regarding real estate investments, or that the manager or its affiliates have originated real estate investments that have

of say $10,000,000 which would appear to be sufficient to test for QPAM status on a year by year basis.

Also, a review of the percentage of pension fund investments by category reveals that the securities and fixed income managers already enjoy a distinct advantage over real estate investment advisors in attracting pension fund clients. Failure to establish meaningful and reasonable criteria which would allow registered real estate investment advisors to qualify as QPAM's will only serve to increase the advantage of the securities and fixed income managers at the expense of the real estate and mortgage industry.

(2) Transactional Considerations

One example in the proposed Class Exemption (Example 5) contains a prohibition against self-dealing by a QPAM which is prevented from buying real property from its president. While it is clear that this transaction is prohibited, and should not be covered by a class exemption, there are several variations of this example which could result in the receipt of payment from a third party which warrant consideration under the proposed Class Exemption. For instance, a QPAM or its affiliate may be paid a mortgage origination fee by an unrelated third party that becomes a borrower from a pension fund. In many instances, a registered real estate investment advisor will be asked by the trustees of a pension fund to locate investments (e.g., mortgage loans, commercial real estate projects) which satisfy overall guidelines set forth by the trustees of a pension fund. It is common in the real estate industry for third party borrowers to pay origination fees to the mortgage broker. The fees actually paid would be negotiated at arms' length, subject to the competitive pressures of the marketplace, and represent the cost of obtaining money. The payment of these fees should itself is negotiated at arms' length and there is full disclosure to the trustees of the pension funds involved.

A similar point may be raised with respect to a comment in the proposal's preamble that an affiliate may not enter into a transaction with a pension fund which the QPAM manages. The question arises, may an affiliate enter into a separate transaction with a third party borrower such as preclosing a permanent loan to be received from a pension fund or granting the third party borrower a bridge loan or a construction and/or acquisition loan. Such mortgage loan transactions should be allowable provided that the proposed transactions are fully disclosed to the trustees of the pension funds prior to consummation and the security of the pension fund is not jeopardized. A statement clarifying the Department of Labor's position on this issue, and exempting transactions between third party borrowers and the affiliates of a QPAM would greatly aid the real estate industry.

A further clarification should also be made with respect to mortgage servicing. Again, if full disclosure is made to the pension fund trustees, it seems inconceivable that the Department of Labor would prohibit an affiliate of the QPAM from servicing mortgage loans and other real estate investments.

Prudence Requirements

The fact that a transaction is the subject of an exemption under ERISA does not relieve a fiduciary or other party in interest or disqualified person from the general fiduciary responsibility provisions of Section 404 of ERISA. As noted earlier, this section of the law requires a fiduciary to discharge his or her duties respecting the plan solely in the interest of plan participants and beneficiaries and "with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent man acting in a like capacity *and familiar with such matters* would use in

matters." In considering the duty of fiduciaries to obtain adequate information before they make loans of plan assets, courts have been leaning toward a "prudent expert" standard.

Two recent cases illustrate this point. In *Donovan v. Mazzola,* a federal district court took expert testimony on the procedures followed by trustees of a Plumbers Union plan in three real estate transactions and concluded that the trustees had failed to obtain reliable information before loaning money for them.

The court held that the trustees had a fiduciary duty to obtain the kinds of information needed (e.g., reliable feasibility analyses, credit analyses, and detailed site surveys) that are routine in expert investment circles even though they were laymen.

The same result was reached by another federal district court in *Marshall v. Glass/Metal Associates & Glaziers* in a case involving a condominium development project. Although the trustees in that case defended the prudence of their conduct by emphasizing that they sincerely believed their actions were in the best interest of the plan and that they should not be held to standards applicable to large lending institutions or even large plans, the court concluded that the statute requires that they be judged as a "prudent expert," according to the standards of others "acting in a like capacity and familiar with such matters". The court also rejected the trustees' argument that the loan may be a highly successful and profitable venture which will provide a high rate of interest to the plan, as well as job opportunities for construction workers and recreational facilities for residents. The application of ERISA's prudence standard does not depend upon the ultimate outcome of an investment but upon the prudence of the fiduciaries under the circumstances prevailing when they make their decision and in light of the alternatives available to them. In this case, said the court, the plan trustees, lacking prior lend-

estate investment vehicles such as commingled funds or mortgage pools which according to expert testimony offered greater opportunity for diversification and assurance of a steadier return. By committing the plan assets without adequate procedures and evaluation of the risks involved and alternatives available, the trustees violated their statutory duty of prudence.

The lesson to be learned from the two cases is that the courts are imposing a "prudent expert" standard in reviewing the actions of plan trustees. In view of this presumption of expertise, it is absolutely essential that plan sponsors retain the services of professional money managers especially when dealing in a specialized field such as investment in residential housing.

Assuming that a plan trustee has retained the services of a professional money manager, let me suggest to you that the money manager's recommendation that money be lent to plan participants at a percentage below the prevailing *loan* rate may indeed be prudent when viewed as an ***investment of the plan.*** This issue, which has been a hotbed of controversy in the pension/mortgage area over the past few years, recently came to a head when the U.S. District Court for the Southern District of Florida ruled in favor of the trustees of an operating engineers' local pension plan on the Department of Labor's claim that the trustees had violated ERISA by making below-market mortgage loans to plan participants (***Donovan v. Walton,*** No. 81-6281, March 3, 1983).

The fact that the Department of Labor brought this case at all is rather surprising in view of its well-publicized January 15, 1981 letter to the National Coordinating Committee for Multiemployer Plans in which the Department outlined the factors that could be considered by trustees in making residential mortgage loans to plan participants at rates below those charged by other lenders. (See Exhibit A.)

ing of ERISA and whether the rate of interest charged is "reasonable" within the meaning of ERISA's participant loan exception to the prohibited transaction provisions (ERISA § 408(b)(1) and IRC § 4975(d)(1)).

Discussing whether a rate of interest is "reasonable in light of prevailing interest rates, the Department said it does not view the prevailing rate "as a single number or view the prevailing rate standard as unduly rigid." The prevailing rate standard is flexible "because it is a concept based on the composite of what persons and institutions in the business of lending money would obtain as compensation for the use of money which they lend under similar circumstances."

The Department noted, however, that "because the loan program or a particular loan is a ***plan investment and not a benefit provided participants under the plan,*** the incidental advantages which might accrue to borrowers from the availability of plan financing would not be appropriate for consideration in the plan's fiduciaries' investment decision making."

Also, the Department cautioned that a mortgage loan selected in preference to other investment alternatives generally would not be prudent if the investment provided the plan with less return, in comparison to the risk involved, than a ***comparable investment*** available to the plan or if it involved a greater risk to the security of plan assets than another investment offering a similar rate of return.

Based on this January, 1981 ruling and in the absence of any other authority or guidance as to what is a "reasonable rate of interest" under ERISA and the Internal Revenue Code, most pension practitioners have been advising their clients that participant loans are plan investments that should be tested based on the comparability of terms and return.

This rule of thumb test seems to make abundant good sense. For example, a plan loan to a participant to purchase a new home for say $50,000 (the new max-

sury bond which is currently yielding between 10 and 11%. Consequently, if it is prudent for a trustee to invest in U.S. Treasuries, why not loans to participants at the same rate? As a matter of fact, investment in participant loans may be even more prudent than U.S. Treasuries because of the additional feature of the participant's vested interest as collateral and the fact that the plan is recouping the amount of its investment earlier under a typical mortgage loan with level amortization as opposed to a government loan which just pays interest until date of maturity.

Nonetheless, the Department argued in the *Walton* decision that the use of plan assets to extend mortgage loans to participants at rates of interest below prevailing rates charged by professional lenders "violated fundamental fiduciary standards embodied in ERISA." This position seems to be misplaced based on the terms outlined in their 1981 letter and ERISA's legislative mandate that the fiduciary standards be interpreted by the Department and the courts "bearing in mind the special nature and purpose of employee benefit plans." (Conference Report 93-1280, P. 302) In this regard, pension financing typically utilizes conservative interest assumptions of 5 to 8 percent because of the length of the funding period which can run over participant lifetimes of over 50 years. On the other hand, it is necessary for professional lenders to charge a much higher rate because of the possibility of interest rates dropping and mortgage holders refinancing their mortgages at the lower current rate. I suggest that over a period of 25-30 years, the interest rate will "average out" to the current return of conservative investment vehicles such as U.S. Treasuries. This seems to be the proper test of prudence under ERISA "bearing in mind the special nature and purpose of employee benefit plans."

Indeed, the Department of Labor espoused this view in regulations issued

and Pension Plan Investments under
ERISA." According to the regulations,
factors to be considered by a fiducian
making an investment decision are (1
determination that the particular inves
ment or investment course of action i
reasonably designed as part of the po
folio to further the purposes of the pla
(2) the composition of the portfolio wit
regard to diversification, (3) the liquidi
and current return of the portfolio rela
to the anticipated cash flow requireme
of the plan and (4) the projected retur
the portfolio relative to the funding ob
tives of the plan. Finally, the Labor
Department's "prudence" regulations
emphasize two major considerations:

> (1) Under the fiduciary requirements
> common law trusts, the prudence of a
> investment involving benefit plan func
> should be judged ***within the context***
> ***the plan's overall portfolio,***

> (2) The particular investment must be
> "prudent" choice in light of the plan's
> pose and goals. Accordingly, even
> investments in "riskier" businesses o
> those that do not produce current inc
> such as art and certain stocks, may
> acceptable under the Labor Departm
> criteria.

Pension plans are not professiona
lenders in the business of lending b
are investment vehicles that should
a return commensurate with the ac
ary's projections. Any return substan
in excess of the pension fund's proje
tions normally does not increase ben
of plan participants but only serves to
reduce the amount of future compan
contributions to the plan. Also, with
respect to those multi-employer plan
negotiate employer contributions in c
nection with investment experience,
is wrong with a union's willingness to
forego higher pension benefits in the
future for lower participant mortgage
now? Consequently, one wonders
whether the concern over a defined

net after deducting expenses equals or exceeds the rate of return assumed by the actuary under the plan?

It is interesting to note that the Department's main argument in the *Walton* decision is that the prohibited transaction provisions of ERISA are patterned after the Code's private foundation rules ***and*** under those rules the IRS equates reasonable rate of interest with the prevailing rate of interest charged by financial institutions.

Although this is all perfectly true, the Department's reliance on the private foundation rules is misplaced since such rules were designed to prevent taxpayers (i.e., sponsors of a private foundation) from using tax-exempt foundation assets for loans at advantageous rates. Here, the concern is not with lending trust assets to plan sponsors (i.e. employers) at advantageous rates but rather with benefiting the participants and beneficiaries of the trust and at the same time earning a "reasonable" return.

Also, the purpose, organization and funding of a private foundation and employee benefit plan are not the same. While a private foundation's purpose is to receive funds from grantors and distribute to designated beneficiaries, there are no required annual contributions by the grantor and only the income and gain has to be distributed. On the other hand, with respect to pension plans, annual contributions are required and principal as well as income ultimately has to be distributed.

Finally, bottom line, what most theorists forget is that employees have to survive in order to receive and enjoy pension benefits. What harm is there in helping active participants live better today so long as the pension benefits of retirees are protected by prudent investments? What element of risk is there in lending money to participants on terms as favorable as comparable investments? Again, earning below the prevailing mortgage rate in the

mental fiduciary standards" but only serves to lower future employer costs so long as the rate net of expenses equals or exceeds the plan's interest assumption. On the other hand, in the case of a defined contribution plan such as a profit sharing or thrift plan, retirees have received their plan account balances on severance of employment so the only "fiduciary" concern is for active employees. And why shouldn't they be able to invest their savings in loans to themselves so long as the return is commensurate with comparable investments?

Conclusion

The Department of Labor is seeking to appeal the Florida District Court's unfavorable ruling in the *Walton* case. In arguing for an expedited appeal, the Department has contended that the construction of the phrase "reasonable rate of interest" requires a clear and definitive appellate ruling, that it is a party to several proceedings involving similar questions and is concerned about the spread of "discount" investment practices. In view of what we have discussed earlier, I suggest that the Labor Department reconsider its appeal of the *Walton* decision and rethink the whole issue of so-called below market loans. Again, prudence is not an issue at all so long as the return on a mortgage investment equals or exceeds the interest rate assumed in financing the plan and the particular investment is reasonably designed to further the purposes of the plan and the composition of the portfolio with regard to diversification. Any interest earned above the funding objectives of the plan only serves to benefit the employer rather than the employee through reduced employer contributions to the plan or a potential reversion of excess assets to the employer in the event of a termination of the plan. Whether or not assets generated by earnings in excess of the plan's assumed

assets earned by higher than anticipated investment yield.

Let us abandon the current polarity of positions between the Labor Department's view that anything below the prevailing lending rate is imprudent and organized labor's vocal stand on socially directed investments. Neither side should be inflexible. Instead, I urge the Labor Department to return to the common sense view that a participant loan program should be as a ***comparable investment available to the plan within the context of the entire portfolio*** as espoused in their prudence regulations and letter. A statement that reiterates the well-reasoned "middle-of-the-road" criteria of the regulations and letter is long overdue. The Labor Department should support the Administration's efforts "to move as expeditiously as possible to complete the drafting of regulations designed to provide even greater freedom for all pension funds to invest additional monies in housing if they choose to do so" (December 1981 statement by President Reagan).

Finally, with respect to the prohibited transaction rules, let me suggest to you that Congress went overboard in 1969 as a result of certain questionable practices entertained by charitable organizations. In enacting ERISA, Congress compounded its error by imposing a neat statutory scheme that was already in place. By taking the easy way out, Congress has imposed a myriad of technical, legal barriers that have inhibited pension plan investments including the purchase of residential mortgages.

In conclusion, I suggest that the prohibited transaction rules should not only be changed to allow investment in home mortgages, but, indeed, should be eliminated completely and replaced by the arms' length standard that existed prior to ERISA.

Labor-Management Services Administration
Washington, D.C. 20216

Reply to the Attention of:

Exhibit A

Thank you for your submission of July 3, 1980, regarding the application of the Employee Retirement Income Security Act of 1974 (ERISA) to investment programs under which multiemployer plans may offer mortgage loans to plan participants and beneficiaries. We appreciate the significance of this matter, and feel that your detailed analysis has helped us focus on pertinent issues.

Analysis of a program of investment by an employee benefit plan in residential mortgage loans which may be available to the plan's participants involves consideration of three distinct questions: whether the program is "prudent" within the meaning of §404(a)(1)(B) of ERISA; whether particular loans within such a program are "prudent" within the meaning of that section; and where a loan is to be made to a plan participan whether the rate of interest charged on a loan is "reasonable" within the meaning of §408(b)(1) of ERISA and §4975(d)(1) of the Internal Revenue Code. Section 404(a)(1)(B) of ERISA provides, in part, that:

> "a fiduciary shall discharge his duties with respect to a plan solely in the interest
> the participants and beneficiaries and. . . .
>
> (B) with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. . . . "

ERISA's federalized prudence requirement, although based upon the common law trusts, does depart from traditional trust law in some respects. The Department interprets section 404 as providing greater flexibility, in the making of investment decisions by plan fiduciaries, than might have been provided under pre-ERISA common and stat utory law in many jurisdictions.

As you are aware, the Department has adopted regulations under section 404(a)(1)(B). Under regulation 404(a)(1), a fiduciary must give appropriate considerati to all facts and circumstances that the fiduciary knows or should know are relevant to the particular investment decision involved, in order for the decision to be deemed prudent. The regulation identifies certain specific factors (although the list does not purpor to be exclusive) to be taken into account by the fiduciary: (1) portfolio diversification; (the plan's liquidity needs; (3) the projected return of the portfolio relative to the plan's funding objectives; and (4) the opportunity for gain and risk of loss associated with the investment under consideration. In addition, the fiduciary must, on the basis of all such relevant factors, determine that the investment is reasonably designed to further the purposes of the plan.

In your submission you list a number of factors which you deem relevant to a fiduciary's consideration of a possible mortgage financing program which would include loans to participants. For instance, you state that, in deciding whether to establish a pa ticipant loan program, a fiduciary should consider potential earnings, risk, the relationship of these factors to the average return and risk of the plan's portfolio, and matters diversification, cash flow, and funding. You state that, in deciding what interest rates to charge on participant loans, a fiduciary should consider the plan's funding requirements, the amount of the loan, the demand for similar loans at various rates, and certa matters related to risk. We agree that all these factors may appropriately be considere by plan fiduciaries in their investment deliberations. Of course this list is not exclusive, and obvious relevant additions which prudent plan fiduciaries would necessarily consider are the availability, riskiness and potential return of alternative plan investments. However, because the loan program or a particular loan is a plan investment and not a benefit provided participants under the plan, the incidental advantages which might accrue to borrowers from the availability of plan financing would not be appropriate for consideration in the plan's fiduciaries' investment decisionmaking. Assuming that plan fiduciaries have prudently decided to make a particular mortgage loan or to undertake an investment program involving residential mortgage financing where such financing may be made available to plan participants, the question then arises whether additional requirements are imposed, because those participants are parties in interest with respect to the plan. As you know, the ERISA statutory exemption which §408(b) provides from the prohibitions of §406 otherwise applicable to a plan's mortgage loan to a plan participant is available only when the loans:

> "(A) are available to all such participants and beneficiaries on a reasonably equivalent basis, (B) are not made available to highly compensated employees, officers, or shareholders in an amount greater than the amount made available to other employees; (C) are made in accordance with specific provisions regarding such loans set forth in the plan, (D) bear a reasonable rate of interest, and (E) are adequately secured."

The Department has not issued regulations under §408(b)(1). You ask the Department's views concerning the "reasonable rate of interest" requirement.

ERISA was enacted against a backdrop of history in which private employee pension benefit plans had been governed in substantial part by the requirements of the Internal Code relating to the tax qualification of such plans. In administering the Code provisions permitting the qualification of such a plan only if it was maintained "for the exclusive benefit" of participants and beneficiaries, the Internal Revenue Service developed rules and guidelines for interpretation of the statutory language and ruled on a variety of factual situations. In enacting ERISA, Congress was aware of these interpretations and rulings, as can be seen, for example, from the ERISA Conference Report, H.R. Report No. 93-1280, 93d Cong., 2d Sess. (1974), which provides, at p. 302:

> Under the Internal Revenue Code, qualified retirement Plans must be for the exclusive benefit of the employees and their beneficiaries. Following this requirement, the Internal Revenue Service has developed general rules that govern the investment of plan assets, including a requirement that cost must not exceed fair market value at the time of purchase, there must be a fair return commensurate with the prevailing rate, sufficient liquidity must be maintained to permit distributions, and the safeguards and diversity that a prudent investor would adhere to must be present. The conferees intend that to the extent that a fiduciary meets the prudent man rule of the labor provisions, he will be deemed to meet these aspects of the exclusive benefit requirements under the Internal Revenue Code.

Because Congress intended to incorporate standards of fiduciary conduct no less protective of plans and their assets than the Internal Revenue Service rules cited by the conferees, including the rule that an investment provide a fair return commensurate with the prevailing rate, we understand the requirement of §408(b)(1) that participant loans bear a reasonable rate of interest to incorporate that objective standard.

However, the Department does not view the "prevailing rate of interest" as a single number, or view the prevailing rate standard as unduly rigid. To the contrary, we believe the prevailing rate standard is flexible, because it is a concept based on the composite of what persons and institutions in the business of lending money would obtain as compensation for the use of the money which they lend under similar circumstances. We are aware that lenders take into account a variety of different considerations (such as, e.g., term, security, amount of borrower's equity, discounts, prepayment provisions, etc.)

in determining the interest rate at which they might make any particular loan, and tha they accordingly differ to some extent as to the rate of interest they would charge on similar loans. The prevailing rate standard permits a fiduciary to consider those facto pertaining to the opportunity for gain and the risk of loss that professional lenders wo consider, in setting the rate of interest on a similar arm's length loan. A plan could, fo example, charge a lower rate of interest to a plan participant than the rate that would appropriate on the basis of all other pertinent factors if appropriate fiduciaries determined, on the basis of their knowledge of the participant's employment background, lending money to that participant involved less risk of loss than would ordinarily be associated with such a loan. Similarly a plan could charge a lower rate of interest to participant, where some portion of the loan was secured by funds in the possession the plan, such as the participant's vested benefit.

Thus, we concur with your statement that "[A] mortgage interest rate charged by plan that is below the stated rate of other lenders for a similar loan may, ***under certa circumstances,*** be a 'reasonable rate of interest' within the meaning of section 408(b)(1). . . . " (Emphasis added). However, we reemphasize that any particular prospective mortgage loan or program of mortgage loans to be made by a plan, con dered as a plan investment or investment course of action, and therefore selected (all) in preference to other investment alternatives, would generally not be prudent if investment or investment course of action provided the plan with less return, in com ison to the risk involved, than comparable investments or investment courses of act available to the plan; or, alternatively, involved a greater risk to the security of plan assets than such other investment or investment course of action offering similar re Accordingly, a mortgage loan program adopted to provide mortgage financing for pl participants in a manner inconsistent with the above would not be lawful.

We trust this guidance will prove helpful.

Sincerely,

Ian D. Lanoff
Administrator
Pension and Welfare Benefit Programs

transactions, it appears that if a commitment is issued to a mortgage banker and he is granted service of the commitment, he then becomes a party in interest and can receive only one commitment. Then the plan must go to another mortgage banker, and another, ad infinitum. This appears to be required by ERISA section 406. Is this accurate? To what extent do recent exemptions ameliorate or eliminate this problem?

Answer: To the extent that an entity becomes a service provider to an employee benefit plan, e.g. such as the mortgage banker in this example, it would become a party in interest under ERISA and, therefore, would, in the absence of an exemption, be prohibited from selling additional mortgages to the plan. It was precisely to deal with this "technical" problem that the Department issued Prohibited Transaction Exemption (PTE) 82-87 (47 FR 21331, May 18, 1982). Subject to the conditions contained in that exemption, a wide variety of mortgage transactions are now permitted between plans and service providers.

2. Question: *What limitations on investment in mortgages still exist even with the exemption? E.g., are there limitations on the types of organizations that can act as independent fiduciaries in originating mortgages?*

Answer: There are no *per se* restrictions in ERISA regarding investment by employee benefit plans in mortgages. ERISA problems, when they do arise, are generally the result of the plan dealing with someone with whom it has a preexisting relationship such as the one in question 1. Under PTE 82-87 many of the more "technical" obstacles to plan investment in mortgages have been removed. The exemption does, however, contain a number of protective conditions such as limiting its applicability to mortgages that are eligible for purchase under

ciary, called a "qualified real estate manager" in the exemption, is in fact independent and qualified, certain minimum standards have been established. These standards do not, by their terms, exclude any specific type of organization but merely require independence from the parties dealing with the plan and experience advising institutional investors regarding investment in the mortgage field.

3. Question: *We see quite frequently packages of loans for sale. The loans may be from thrifts, some for conventional mortgages, some old enough that they may not conform to FHLMC, FNMA, GNMA standards. Yet they will have attractive prices. Is there danger in buying these if they are not eligible for FHLMC, FNMA, GNMA programs?*

Answer: To the extent that these transactions are with parties in interest and are not otherwise exempt, they would involve prohibited transactions with all the attendant tax and civil penalties. If the transaction does not involve a purchase from or an extension of credit to a party in interest, then there is no prohibited transaction potential and assuming, of course, that the acquisition would be otherwise prudent, ERISA rules would not affect the transaction.

4. Question: *Does the pension fund have to have an independent advisor who helps them make the investment decisions on mortgages, in addition to the mortgage banker who is going to get the commitment from the fund and originate and service the mortgage? And, if a third party is brought in, can this type of investment be made?*

Answer: *PTE 82-87 requires that in order to be covered by the exemption, a mortgage must be originated by an "established mortgage lender" and approved on behalf of the plan by a "qualified real*

services.

5. Question: *From a prudent standpoint, isn't it more prudent to have an independent underwriter between the mortgage banker and the fund, keeping in mind that the mortgage banker is inevitably going to be handling the servicing at probably one-fourth of one percent of the outstanding balance of any individual commitment?*

Answer: Arguably, a conflict of interest may arise in the situation described. The exemption, however, contains a number of protective conditions, including the above described qualitative standards to assure that the plan is treated fairly and equitably. Furthermore, any mortgage banker who is retained by the plan to service mortgages held in the plan's portfolio must be approved and monitored on an ongoing basis by the plan's trustees (or other appropriate fiduciaries). Obviously, in some circumstances, a plan may determine that it is appropriate to separate the underwriting and servicing responsibilities.

6. Question: *On diversification of investment, our understanding has been that since mortgages are a small proportion of a fund, that is taken care of. However, is it now the case that a small fund would be able to have a large investment, say in a large apartment complex, that might be 20 percent or 30 percent of the fund, and this would be alright?*

Answer: ERISA requires that a plan's investments be diversified in order to ensure against the risk of large losses. Investing a substantial percentage of a plan's assets in one piece of real property or one mortgage obviously presents potential problems under the diversification rule. It is very difficult to say in the abstract at what point a singular investment results in a non-diverse portfolio. (I would also note that the relief afforded by *requirement for diversification within the category of real estate? How does diversification affect the level of real estate investment allowed?*

Answer: Many advisors believe that a plan's portfolio should be diversified between various types of investment such as stocks, bonds, and real estate and that diversity is appropriate within these categories as well. Again, it is very difficult to answer questions relating to diversification in the abstract.

8. Question: *More generally, is diversification measured for each category of investment, or for the entire portfolio?*

Answer: See answer to number 7.

9. Question: *Does the diversification requirement even apply to government backed or guaranteed securities, since there is almost no risk of loss?*

Answer: Clearly, the level of risk is a very important factor in making an investment decision. However, it is not the only consideration. Other matters such as the need for liquidity, the age of plan participants, the type of plan, and the nature of the risk of the portfolio must be considered. This analysis would seem to be necessary in making any appropriate investment decision. See DOL regulation 29 CFR 2550.404a-1 (44 FR 37221, June 26, 1979).

10. Question: *What is the Labor Department's current stand on options related to mortgage investments, stand-by options and the like?*

Answer: The Department does not approve or disapprove of any specific type of investment vehicle or investment course of action. Under ERISA, appropriate plan fiduciaries are responsible for making prudent investment decisions by evaluating individual investment decisions investment on plan fiduciaries.

11. Question: *A couple of years ago our clients paid option fees, these were stand-by options. We bought a portfolio full of mortgages and paid fees for stand-bys, which in essence, created a call if mortgages went up in value and we didn't exercise the stand-by and we kept them. If they went down in value we exercised the stand-by and put them to someone else. It was creating a call, but the Department of Labor, or the Comptroller of Currency said they felt for trustee plans that the more straightforward way of buying a call was not an approved investment. Has there been a change in the Department's attitude toward the use of options and pension investing?*

Answer: I am not aware of any statement by the Department of Labor regarding the investment strategies you have described. As noted in the answer to question number 10, the Department, other than in an enforcement context, will not rule on the prudence, or lack thereof, of any particular investment course of action.

12. Question: *Are all ERISA funds bank trusteed? Must they be?*

Answer: No. ERISA requires that, with the exception of plans that are fully insured, all assets be held in trust by a trustee. The statute does not contain any specific restrictions on who may serve as a trustee.

13. Question: *We have some equity real estate in our fund, but no debts. From the stand point of geographical diversification, and when considering prudence, do you look at both about the same from the geographical diversification aspect? Is it more or less important to have geographic diversification in equity or in real estate equity, than in real estate debt?*

Answer: In general the concept of diversi-

estate for the plan. We did not do it. One reason was that our lawyer said you had to own more than one piece of property. But we were going to make a direct purchase, an investment in one single property, and it seemed we would have to go out and buy two pieces of property in different parts of the state or something.

And say this investment would be less than five percent of the plan. Would it be permissible?

Answer: As discussed previously, ERISA does not contain any *per se* investment limitations. Individual investments have to be judged on a facts and circumstances basis. It is really not possible for the Department to make advance determinations on these matters, except perhaps, in the most extreme cases. However, there are specific restrictions in ERISA regarding a plan's ownership of property leased to a sponsoring employer. This element may have been present in this example. See ERISA section 407(d)(4) for a definition of qualifying employer real property.

15. Question: *It seems to me that the Labor Department is a little bit down on social investing. I would like to know is there a place for social investing, especially as it meets the ERISA requirements?*

Answer: The phrase "social investing" has generally been interpreted as a course of conduct by an employee benefit plan in which such plan might be willing to sacrifice a certain amount of investment yield if the investment itself were to further some otherwise desired objective. The relevant provision of ERISA for purposes of this issue is section 404(a)(1)(A) which provides that a fiduciary shall discharge his duties with respect to a plan solely in the interest of participants and beneficiaries. . . for the exclusive purpose of (1) defraying reasonable expenses of administering the plan." While this section does not exclude the provision of incidenretirement income is, and should continue to be, the *overriding social objective* governing the investment of plan assets. Where the introduction of social objectives has served to dilute this primary objective (e.g., a sacrificing of investment yield) the Department has taken the position that such conduct by a plan fiduciary is imprudent. However, if the socially beneficial investment meets objective investment criteria which are appropriate to the financial goals of the portfolio, it may be considered in the same manner as other investments which meet these criteria. To say it another way, if after evaluating the economic factors in a transaction, two investments appear to be equally desirable, then social benefits may be considered in determining which to select.

16. Question: *On another aspect of social investing. Suppose a plan is adequately funded and is using an actuarial assumption of investment yield to say, 6 or 7 percent, which is fairly typical these days. The plan is a mature plan, it has no particular financial problems. If the going rate in mortgages is 16 percent and it invests at 14 percent, there is some argument that might be made that that is social investing, even though it was, perhaps in the best interest of the plan participants for a variety of factors.*

There seems to be no jeopardy to the plan's participants. If it is a defined benefit plan there is no increase in benefits, the participants are not losing anything by reason of the two percent lower yield. Why would the Labor Department be particularly concerned about not getting the maximum yield in a situation such as that?

Answer: The Department has consistently taken the position that all forms of investment by a plan must first and foremost be prudent. In the Department's opinion, a actuarial assumptions regarding the *investment performance* of a plan portfolio or the type of benefit structure should not be factors in determining an appropriate rate of return for a particular investment. The marketplace establishes an expected rate of return based upon several factors including the degree of risk in a particular investment. Why should a plan accept a lower rate of return than other investors in marketplace? With respect to the suggestion that accepting a reduced yield in a defined benefit context is not detrimental to plan participants, I would suggest that favorable investment performance often forms the basis for adjusting benefit levels without increased contributions by sponsoring or contributing employers.

17. Question: *In regard to market value of mortgage loans and real estate investments, versus cost value, what is the position of the Department of Labor with respect to the financial accounting standards for Regulation 35 and a qualified accounting report indicating that it is in conformity with ERISA but not with the FASB-35?*

Answer: ERISA section 3(26) forms the basis for the Department's position regarding the valuation of plan assets. This section states that "current value" means fair market value when available otherwise fair value as determined in good faith by an appropriate plan fiduciary. The instructions to the annual reporting forms for financial disclosure by employee benefit plans provide that current value as opposed to cost value is the proper figure for reporting asset valuations.

18. Question: *A question has arisen recently whether the relief provided in your new plan asset definition, whether it is limited to government related securities backed by single-family mortgages, or if that relief also extends to govern-*

plan investment in a particular entity is characterized as a plan asset. The regulation provides that where an employee benefit plan acquires a "guaranteed governmental mortgage pool certificate", plan assets include the certificate and all rights with respect to such certificate based on applicable law but do not, solely by reason of the plan's holding of such certificate, include any of the mortgage underlying such certificate. A "guaranteed governmental mortgage pool certificate" is a certificate backed by, or evidencing an interest in, specified mortgages or participation interests therein and with respect to which interest and principal payable pursuant to the certificate is guaranteed by the United States or an agency or instrumentality thereof. Subsequently, the Department stated that the plan asset regulation was applicable to any guaranteed governmental mortgage pool certificate irrespective of the type of mortgage or the nature of the property securing a mortgage contained in such pool. Accordingly, GNMA securities backed by mortgages on multifamily properties would be accorded the favorable plan asset treatment.

19. Question: *Let's take a scenario of a seasoned loan portfolio at a savings and loan and an offering being made to a pension plan. Obviously, in addition to those instruments perhaps not being on uniform mortgage documents originated some years ago, their rates would be somewhat below today's market rates.*

The question then is, assuming no problem with prohibited transactions and discounting the coupon to a present market yield, is there any problem that you have with the plan investing in apparently below market rate loans but which obtain current market yields?

Answer: As I have stated before, the Department measures all plan invest-

ntroduction

Our concluding section describes a series of challenges facing the housing finance industry in the 1980's. It is clear that much of the future of mortgage finance depends on attracting an increasing share of investment from the capital markets. By now it should be well established that mortgage investments can compete on the basis of yield, security and liquidity with any prudent investments. But it will not be sufficient to just maintain the status quo. To expand is to improve. So the challenge will be to adapt and improve investment instruments to widen their market share.

Three types of adaptation to the market are described in this section. First Richard Worely, of Miller Anderson and Sherrerd describes a variety of ways to keep and increase the high yields of MBS's, and create a form of call protection by using seasoned mortgages. Then Lewis Ranieri and Joseph Hu of Salomon Brothers discuss the means, cost and benefits, of providing call protection on current mortgages and coupons. Attracting the next wave of investment capital to housing may well depend on solving the problem of call protection and putting MBS's on a level footing with corporate bonds.

The nagging question of standardization is addressed by Jack Guttentag. The versatility of free enterprise has rarely been so clearly in evidence as in the plethora of adaptations to volatile interest rates which were developed in the period 1978-1982. Yet this proliferation had serious effects on the secondary market. The multitude of vehicles depressed the volume in particular issues, weakening their liquidity. It became obvious that standardization of definitions, mortgage types and processes is crucial to success in attracting investors. In his essay, Guttentag proposes some solutions to the lack of standardization, and some directions that major secondary market institutions,

One proposed solution to the problems of secondary market is Trusts for Investment in Mortgages (TIMs). Initially proposed by the President's Commission on Housing, TIMs is a legislative proposal which would allow mortgage pools a wide range of management discretion, including the ability to establish distinct classes of investors with varying payout rates, and the ability to reinvest principal and interest. Besides providing call protection, these changes would allow for an increasing privatization of the secondary market. TIMs legislation is currently under review within the Administration. However, Senators Garn and Tower have already introduced a version of TIMs legislation. The analysis of that legislation in this section presents a brief picture of the approximate outlines of the eventual TIMs legislation.

Another avenue of action which has been considered is to seek flexibility through a broader interpretation of the IRS Grantor-Trust rule as it is applied to mortgage pools. Even though such an administrative action would be narrower in scope than the legislative changes sought through TIMs, it might provide limited ability to pool managers to reinvest early prepayments of principal according to contracts set when pools are instituted. Such reinvestment capacity would allow investors to maintain a predictable yield for from three to five years. An example of the type of revenue ruling request under consideration is included in the appendix.

Even without legislation or administrative action, recent Wall Street innovations are providing flexibility in the mortgage secondary market. State of the art technology is leaping forward. Not only did FHLMC bring forth its CMO, which provides fast-pay and slow-pay options and a form of call protection, but the Pulte corporation has followed that with its own bond issue, backed by a GNMA guaranteed mortgage pool, which offers

One thing I have difficulty understanding is why more pension funds don't have more of their money in mortgages. I think mortgages offer probably the most attractive combination of quality, yield, liquidity and maturity available in the fixed income market.

My job is to try to make as much money as I can for my clients in their fixed income portfolios. In trying to achieve that I have put about 90 percent of the fixed income portions of my clients' assets into a whole array of mortgage securities.

Mortgages yield more than other fixed income securities; they are more liquid than corporate bonds, at least that has been my experience; they have a maturity structure that is more appropriate to a pension fund than some of the other traditional fixed income alternatives. And there are inefficiencies within the mortgage market that allow a manager to earn more for his clients than perhaps in some of the other markets.

There are disadvantages to mortgages, too, and I think they should be understood. Some are real and some are imagined. In the latter category I think the mechanics of mortgages have been off-putting to many people. You receive monthly payments instead of semiannual payments. and you can never be certain of the size of the payment. You know it will include interest and also a scheduled principal repayment, but there will also be unscheduled principal payments from time to time. And it is a lot to deal with.

About five or six years ago when we began to increase our investment in mortgages, several of the custodian banks with which we worked said, "You really don't want to own these things." And we asked why not and they said, "well, they are really just a pain in the neck to deal with." And they are, until you learn how to do it, and then you find it is surprisingly simple.

As an investment manager, I am happy it is that way because the more people that are kept out of the mortgage market, the higher will be the yields in the area.

Some investors are put off by the uncertainty of the maturity of a mortgage security. When you buy a mortgage pool it has a stated maturity of 30 years, but you don't know exactly how long the actual maturity is going to be. Some of the mortgages will pay off early for sure, but you don't know how many or when. The average life of the pool is going to be shorter than 30 years, probably in a range of 10-15 years, but exactly how short you don't know. And some people realy like to know what they have; if they have a 10-year bond, they want to know it is a 10-year bond, that it couldn't be 12-years.

As I will outline in a minute, I think this is more of an imagined disadvantage because when the yields you get are so much higher than with other investments it really doesn't make much difference whether the actual average life of the mortgage turns out to be 11 years or 13. Clearly, the shorter the better in the case of discounts, but if you are still getting a higher yield, regardless, it does not matter very much.

There is a third reason why many managers avoid mortgage-backed securities. There is a learning curve in mortgages. It is hard to know all the yield spreads among corporate bonds and Treasury Bonds and all of the subtle differences in credit quality, sinking fund provisions and call protection of corporate bonds, and also keep up with the mortgage market.

Because of the changes in the mortgage markets in recent years, there is a whole array of new mortgage securities. It is hard for a manager who cut his teeth on corporate bonds during the last 10 to 12 years, swapping them back and forth, to devote as much time as is

Actually, though, the mortgage market is not as forbidding as it may appear. The issues are not really terribly complicated. The prepayment issue is the most important to the mortgage investor and it is not very difficult to understand the economics of prepayments.

On the other hand there are several real disadvantages of mortgage securities.

One involves current coupon mortgages which are callable at the option of the borrower. Callability is a real disadvantage to the investor who is investing in a 30-year fixed rate mortgage instrument priced around par. If interest rates fall significantly, mortgages will be prepaid quickly at par, whereas other types of fixed income securities would go up in price.

A related disadvantage of mortgages is that there is a perverse cyclicality to prepayment streams in mortgages. You are aware of the dollar averaging concept, as it relates to common stocks. Well, dollar averaging in the mortgage market works exactly in reverse, it works against you.

Not too many years ago Sidney Homer and Martin Leibowitz of Salomon Brothers wrote a book. I think its title is ***Inside the Yield Curve.*** They made people aware of how important interest on interest is in the yield to maturity calculation. It dwarfs simple interest over the life of an instrument, and any yield to maturity calculation that you make presumes re-investment of coupons at the yield at which you buy and a steady and known flow of those coupons re-invested.

One thing we know about mortgages is that prepayment rates are going to vary cyclically. And they are going to vary in a way that means you will have more money to re-invest when interest rates are low than you do to re-invest when interest rates are high.

And so in terms of this re-investment

want it to, but in reverse, and that is going to lower the yield.

A third disadvantage in regard to mortgages that is real, is that courts or others may well abrogate what you think are your rights. If you buy mortgages or make loans that say when the house is sold the money is due to be returned, a court in California or elsewhere may come along and say it is really the homeowner's right to transfer the mortgage and you will be damaging him if you make him repay it when he sells his house.

I think that when you are lending in the mortgage market, one of the things that you want to consider is that lenders are never very popular. A lender's standing is probably on more of an even basis when he is standing versus a corporate borrower, than when he is pitted against an individual homeowner, or groups of homeowners.

Those are the three disadvantages I think that you ought to understand before you invest more of your monies in mortgages. But after considering them, I still think that mortgages, particularly discount mortgages, are excellent investments. Below are two yield curve charts drawn in August of 1981 and January 1982.

On this chart I show the Treasury bond yield curve. It shows by maturity the yields of Treasury bonds and then some of the corporate bonds that investors tend to like, a discount telephone at 15.45 percent; an A-rated, Duke Power bond at a yield of 16.10 percent; and there is an ITT 6.5 percent coupon original discount bond at 15.9 percent, etc.

And then you see series of dots, one labelled zero percent FHA and another 25 percent FHA, and so on, up to 150 percent FHA. And those dots that form that line with the FHA experience factors next to them show the yields that you would get if you bought a Ginnie Mae 11 percent at a price of $71.25 and prepayment rates either were zero, meaning every single one of the bonds or mortgages stayed on the books for its full term, the worst case, or, for example, 100 percent FHA, which would be the yield if the mortgage is prepaid at a rate equal to the average of the prepayment experience of the past 20 or so years.

Maybe you think that mortgages won't pre-pay as fast in the future as in the past, so you may prefer to assume 25 or 50, or 75 percent of their past experience.

The point is, it doesn't matter how fast they prepay. Even at zero percent prepayment you made more than you did on A-rated corporates, or on governments. I don't think you have to be a rocket scientist to see that these things look like they are pretty cheap. They are liquid. They have a government guarantee, and in the worst case, they are going to provide a return higher than a A-rated corporate bond.

In addition, if there are any prepayments, the yield is going to be even higher. At this point I don't know how a pension manager could defend having any corporate bonds, accepting corporate credit risk at a time that they could choose a government guaranteed security with a guaranteed high yield.

At the same time if you said that mortgages are really not quite long enough for you, there is a plot at 17.60 percent at 20 years. It is described as an FHA project pool - a pool of FHA insured project loans. The coupon is 7.43 percent, you bought it at the auction at $47.25. The loans are putable in 20 years to FHA. At the end of 20 years, you would get a 10-year FHA debenture, which would have a coupon equal to the average then of 8 to 12 year Treasuries.

The debenture would be a current coupon security. I don't think it would be worth par in 20 years, but maybe it would be worth 92. We calculated what security that you got in return, you could sell at 92. The FHA project pool has almost as low a coupon, as low a dollar price, and as long a duration as an A-rated ITT finance 6.5 percent, and at 17.60 percent yield it has 165 basis points more in yield with an FHA guarantee. Of course, if any one of those projects prepaid, and some might, your yield would be even higher.

The yield advantage of mortgages is very, very substantial. Therefore, the burden shouldn't be on people who defend investing in mortgages. A better question is "How can you justify investing in lower yielding corporate bonds?" It is a lot more sensible to start with the yield advantage of mortgages, and then try to do all of the other things you might want to do, swapping between Ginnie Maes and project pools and Freddie Macs and the like; better to have the yield advantages of mortgages, than to be in the corporate bond area where you are giving up so much yield to begin with. If I were a pension plan sponsor, I would ask my managers why they have so much money in corporates.

Now, I would like to talk about various strategies in managing mortgage securities. As I mentioned, one is to stay away from high coupons most of the time. When they come out with a high coupon mortgage where your interests are protected when interest rates come down, then I think it would be fine to make high coupon mortgage loans. Until they do, I think it is probably better to stay away from them.

What you really want to do is buy low coupon mortgages that are going to prepay because as long as a security is at a discount, you are better off if it prepays. If the security goes through par, that is not the case. But as long as the security is at a discount, you are better

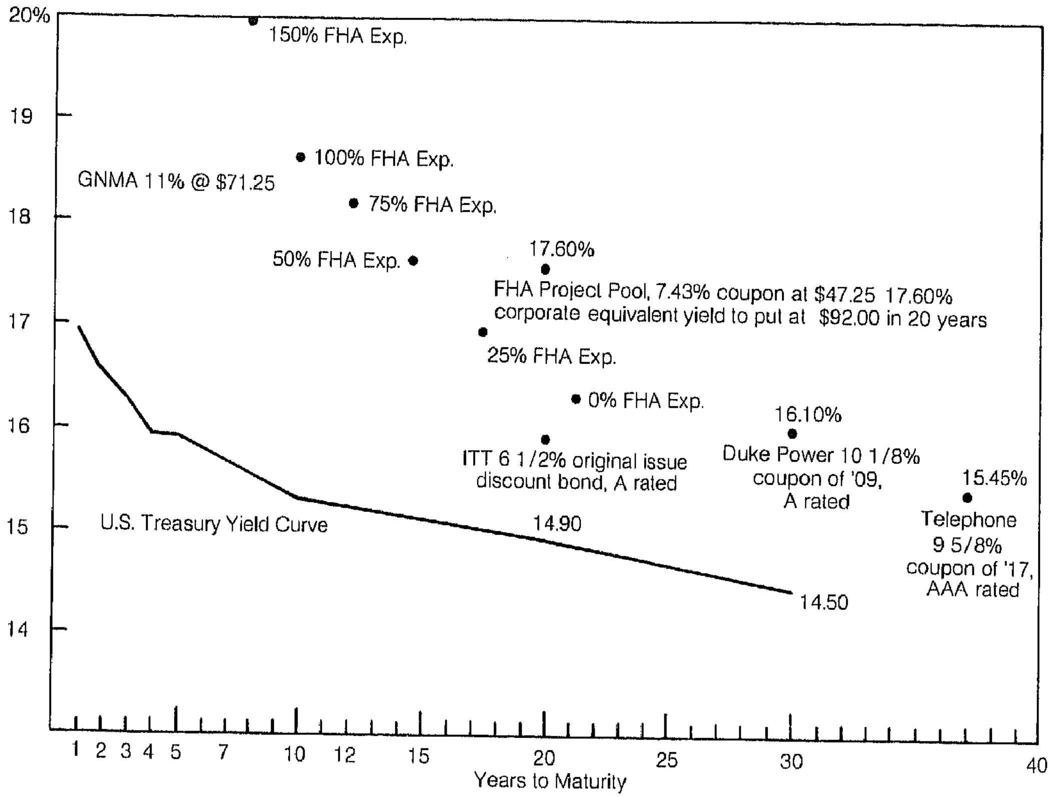
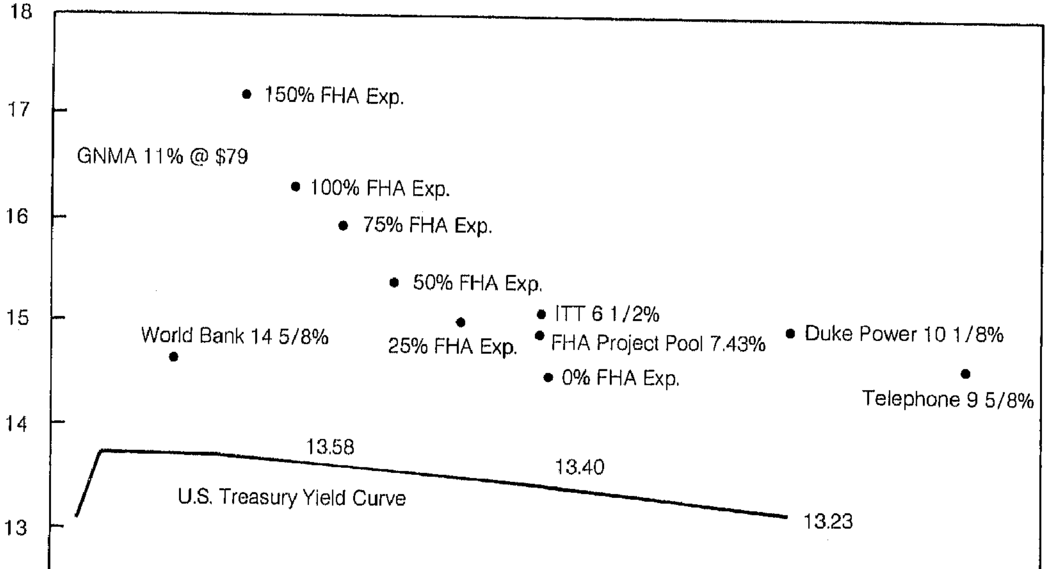


Exhibit 2

Yield Curve 5/24/82



off getting your money back. So, what we try to do is invest in mortgages where we are going to get our money back.

Now, this is a sample of the same yield curve as before, just a few months later. And here you find that mortgages are not quite as cheap, but they are still pretty cheap.

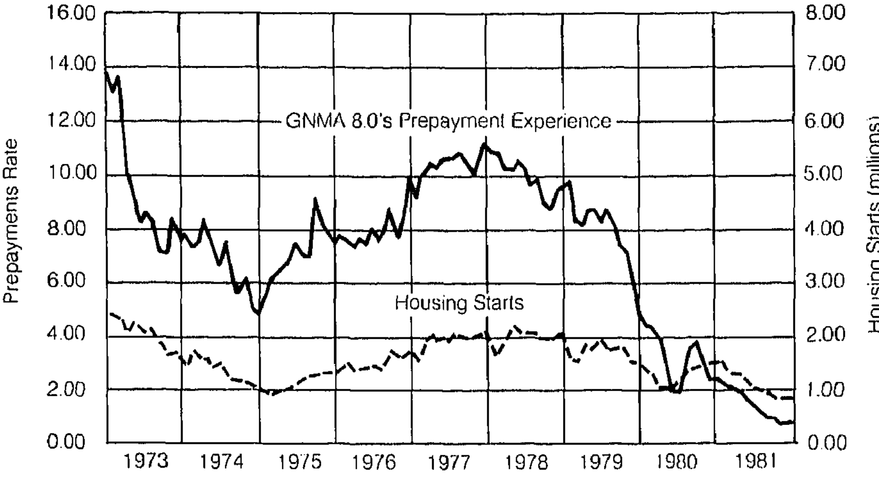
The third chart is courtesy of Salomon Brothers. It shows that prepayments have slowed down a great deal. And that caused some people to become disenchanted with mortgages.

The scales are not really as I would like on this chart to show the association of housing starts and pre-payments. The housing start scale should be blown up a bit. If you use a little bit of imagination, you can visualize that a large part of this slow down in prepayments is associated with high interest rates that have slowed down housing and are probably cyclical.

I would maintain though that there is a part of this slowdown that is going to be more permanent. People are learning how to creatively finance the transfer of homes, the second mortgage business is growing up. In good times prepayment rates for many mortgages are likely to be lower than they were in the past. What you want to do in structuring a portfolio, is to try to structure it with those types of mortgages that will prepay when housing activity picks up.

The importance of that can be seen on the final chart which shows different ways of calculating the yield of a whole menu of Ginnie Maes.

Historical Data for Selected Indicators
January 1973 - December 1981



(Note: Seasonally Adjusted Rates)

This shows the yields on a corporate equivalent basis, that is, adjusting for the advantage you have for mortgages of getting the payment every month, instead of every six months, to make them comparable to the other yields in the market place. And then it shows the yields by coupon, if you have zero prepayments, that is every mortgage runs to its maturity, if you have prepayments at 50 percent of the historic rate, and then if prepayments are at 100 percent, or equal to, the historic rate.

There is a wide range of yields here and it is obvious that you would like to be in the lower right-hand corner of this, rather than in the lower left-hand corner.

How do you do it? I almost hate to give the secret away. It is pretty simple, you just ask yourself what would make a mortgage prepay.

First, there has to be some upturn in housing for there to be very rapid prepayments. So, that is going to be true for all mortgages.

After that you say well, which are the mortgages that are likely to prepay? Is it a Ginnie Mae 9.5 percent that is made up of FHA mortgages, that are assumable, that are only three years old, and were 80 percent loan to value then? So, the mortgage still represents probably 75 percent of the value of the house and the difference in its coupon (10 percent mortgages make up a GNMA 9 1/2) versus the current coupon, let's say even after interest rates come down to 12-13 percent, is still a large difference.

Payment Assumptions

	Avg. Age (Yrs.)	*Price*	*Yield to 12-Year Life**	*Cash Flow Yield Various FHA Experience** *0%*	 *50%*	 *100*
15%	0.4	98 1/8	15.72	15.69	15.72	15
14	0.6	93 7/8	15.49	15.35	15.52	15
13 1/2	1.1	91 7/8	15.35	15.15	15.38	15
13	1.0	89 5/8	15.25	14.99	15.30	15
12 1/2	1.5	87 3/8	15.15	14.82	15.20	15
11 1/2	1.4	82 1/4	15.08	14.59	15.17	15
11	1.8	80 1/8	14.96	14.44	15.14	15
10	1.9	74 7/8	14.92	14.23	15.18	16
9 1/2	2.5	72 1/4	14.91	14.13	15.22	16
9	3.4	70 1/8	14.79	14.01	15.23	16
8	5.3	66 3/8	14.40	13.71	15.17	16
7 1/2	5.3	64 3/8	14.25	13.49	15.08	16.
6 1/2	9.0	60 7/8	13.78	13.72	15.44	17.
GNMA-GPM Coupon						
15 1/2%	0.5	99 1/8	16.05	16.05	16.06	16.
14 1/2	0.7	94	15.92	15.82	15.98	16.
12 1/2	1.7	84 1/4	15.59	15.33	15.85	16.
11	1.8	77 1/8	15.31	14.89	15.70	16.
9 1/2	2.5	70 1/8	15.01	14.40	15.57	16.
FHLMC PC Coupon						
15%	0.5	95 5/8	15.98	15.91	15.99	16.0
12	1.8	80 5/8	15.84	15.39	16.02	16.6
9 1/2	2.6	68 3/4	15.60	14.85	16.11	17.4
8 1/2	4.3	65 1/4	15.20	14.43	15.90	17.4
8	5.7	63 3/8	15.03	14.42	16.01	17.7

* All yields are coupon equivalent

Miller, Anderson & Sherrerd

Now, when one of these houses sells, is the mortgage going to be paid off? Probably not. They are very easy mortgages to assume and the homeowner has probably been educated to the fact that a low interest rate mortgage is really an asset. That makes his house more valuable than the fellow's next door.

So, a recent mortgage that has a coupon rate that is by today's standards very low - remember how quickly interest rates rose - and is assumable, is the last mortgage in the world that is going to get prepaid.

But if you look at the mortgages that are coming out of the thrifts, you find that there are some low coupon, fairly old mortgages, let's say seven or eight years old, so that they were 75 or 80 percent of loan to value, seven or eight years ago. The amount of that mortgage relative to the value of the house is much lower today.

The reason that is important is that second mortgage money is expensive and the smaller the remaining first mortgage, relative to the selling price of the house, the harder it is to assume it, because you have to put more of this expensive second money into it.

Therefore, if you are able to find mortgages where the loan to value ratio is low and further, if you find conventional mortgages in States where due on sale provisions are still enforced, and you concentrate geographically in regions where mobility is relatively greater (there are tables and data on housing turnover by region in the country) - you may be able to pick out mortgages that will pay at 100 percent of FHA experience or faster.

Indeed, you might be able to pick up mortgages that pay 200 or 300 percent of FHA experience, because there are two conflicting forces that are occurring in the real estate market today. One is that people are aware of the advantages of creative financing, and they will try to get their mortgages assumed and that will cause prepayment rates in the future for mortgages that are easy to assume to be lower, because a prepayment isn't going to accompany the house transfer.

But the second is that there are a lot of people that have been bottled up in their houses for two or three years now because of high interest rates. As rates have come down a little, there has been a lot of moving. There are people who want to get from one place to another that have been prevented by high interest rates. And if you can invest in the mortgages of those people, in mortgages that are hard to assume, you may have very rapid prepayment rates when interest rates decline a little more.

And let me say that it wasn't too very long ago when people thought that the average prepayment rate of Ginnie Maes was more like 200 percent of FHA experience than 100 percent of FHA experience, and Freddie Mac prepayment rates are running at three, four and 500 percent of FHA experience.

Now, we all think the world we have been living in the last two years or three years is the new world of the future. Well, maybe it is just the world of the last two or three years which has restrained housing turnover. You could have yields that are an awful lot higher than you see on this table, if you are buying some old discounted mortgages that prepay when housing turnover picks up, when this backlog is unleashed.

And so I think there are some strategies within the management of mortgages that can raise the return to a great deal more than just the stated 12-year returns. I think that not many of your fixed income managers are going to put very much of your money in there because I think it is very hard to be a full-scale manager of both corporate bonds and mortgages. There is a tremendous amount to learn about each mortgage and most managers are more corporate bond oriented than mortgage oriented. But I think the mortgage area is just an excellent one for you to invest in.

mortgages that can be written has created a new problem: excessive proliferation of mortgage designs, many only marginally (or trivially) different from others. Yet some instruments for which there is significant need - which differ in important ways from those available in the market - still do not exist. I call this the "mortgage menu problem", and it is the subject of this paper.

I have been working with the Housing Roundtable, a voluntary group of representatives from firms interested in improving the housing and finance delivery systems,[1] to develop an appropriate menu of residential mortgage instruments. The menu should be large enough to meet the major requirements of borrowers, originator-investors, and secondary market investors; but it should be small enough that information, education and marketing costs are reasonable for all participants, and that efficient secondary markets can be maintained in every type of instrument.

The objective is to standardize residential mortgage originations that are designed to be saleable in the secondary market. The housing sector is becoming more and more dependent on secondary markets to assure an adequate flow of mortgage finance. Thus, sales of conventional home mortgages by the four major lender groups, as a percent of loans originated by these groups, rose from 5% in 1970 to 40% in 1982, and this trend is very likely to con- hand-tailored to the needs of specific purchasers, lie beyond the scope of our efforts.

The project is an unusual one in that it involves a continuing interplay between research, mortgage design and consensus building. The Roundtable has no official status although the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation have observer status and are participating in this project. Ultimately the success of the project in developing a consensus will depend on the Roundtable's ability to educate and persuade the major players in the market (including the two Federal agencies) that the proposed menu is in the best interest of everyone.[2]

The views expressed in this paper, while influenced by early reactions from Roundtable members, at this point must be considered as the author's alone.

I. Recent History of Home Mortgages in the United States

The recent history of home mortgage instruments in the United States is rather remarkable. Ten years ago for all practical purposes there was one type of instrument: the fixed rate, long term, level payment mortgage (FRM). The only significant nonstandardized features of this mortgage were the prepayment penalty clause (if any), and whether or not it included a due-on-sale clause.

Attention focused on two instruments, the graduated payment mortgage (GPM) designed for borrowers, and the adjustable rate mortgage (ARM) designed for lenders. Some of each type were written, GPMs under a new FHA program starting in 1975, and ARMs by State chartered institutions in a few jurisdictions that permitted them, most notably, by savings and loan associations in California.

The spread of these instruments was strongly resisted however. Lenders did not like GPMs and borrowers in general did not like ARMs. As a result Congress and most State legislators were very reluctant to see authority to write these instruments granted to the institutions subject to their jurisdiction. Resistance to ARMs was strongly supported by consumer groups, labor unions and others.

Beginning in 1979, however, the political climate suddenly began to change because of the serious plight of the thrift industry, which was moving quickly toward a state of general insolvency. The principle reason was that the institutions were loaded with fixed rate mortgages funded largely with short term liabilities in an environment of rising interest rates.

The irony is that authorization to write ARMs at that point did not help the industry at all - it was a classic case of locking the barn door after the horse had escaped. Nevertheless, political opposition to ARMs melted away. Within a very short time, legal and regulatory barriers were substantially relaxed or removed altogether. It is hardly an exaggeration to say that today most institutions can write almost any kind of home mortgage they like.

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[1] The chairman of the Housing Roundtable is Weston E. Edwards of Merrill Lynch Realty Associates.

[1] See Kent W. Colton, *Freddie Mac and the Changing World of Housing Finance*, Speech to the Mortgage Bankers Association, January 14, 1983.

[2] A nice question is whether the excessive diversity we now have is rooted in any of the standard causes of "market failure" identified by economists; if so, it would persist indefinitely. Alternatively, excessive diversity may be a transitional phenomena that the market would cure on its own in time. From the standpoint of the Housing Roundtable, however, this question is academic since it can view its own efforts as part of the adjustment

and a proliferation of instruments. These include ARMs, GPMs, shared appreciation mortgages (SAMs), graduated equity mortgages (GEMs), price level adjusted mortgages (PLAMs), and reverse annuity mortgages (RAMs); each of these has many variants.

The greatest diversity is in ARMs. FNMA reports, for example, that in addition to eleven "standard" ARMs for which it solicits offers, it has contracted to purchase more than one hundred others that do not fit the standard categories in one respect or another. But how do we know that that is an excessive number? How many instruments should there be?

II. What Constitutes Excessive Diversity?

1. Efficient secondary markets require substantial transaction volume in a given type of instrument.[1] Large numbers of instruments fragment the market and raise secondary market transaction costs.

Secondary market efficiency in a given instrument depends both on the outstanding stock of the instrument and on the potential volume of market transactions, i.e., the volume that would occur if efficient markets existed. An adequate stock is necessary to provide dealers with confidence that if they short their positions they will be able to cover. Activity is necessary to generate the revenues required to support the resources directed to market-making. As the stock and activity rise, market efficiency increases, as measured by bid-ask price spreads and by the size of individual transactions that dealers are willing to undertake. A "good" market might be considered one with price spreads of one quarter point or less, in which dealers are willing to buy or sell $5 million or more at quoted rates. able in a given instrument if outstandings aggregate $2 billion or more and transactions total $500 million per year or more. While I have not thoroughly canvassed the market, I have identified a number of individual ARMs that do not meet the volume requirements for an efficient secondary market.

How many efficient secondary markets can be maintained? With the stock of conventional mortgages approaching $1,000 billion, potential activity (on the assumption of marketability) is at least $250 billion per year,[1] suggesting the possibility of efficient markets in up to 500 instruments of the same size. Since they are not the same size, this number must be substantially reduced. But even if we divide it by 10, there is enough scope that probably secondary market efficiency will not prove to be a constraint on the total size of menu that is developed.

2. There is little question that diversity is excessive today from the standpoint of primary market efficiency. Efficient primary markets require ready comprehension and easy comparison of the offerings of different originators by households shopping for mortgages. Large numbers of instruments raise planning costs and shopping costs to households, without necessarily increasing their options. With the multiplicity of instruments in the market today, confusion reigns even among many intermediaries such as real estate brokers upon whom households often rely for information and advice. Legally mandated disclosure would do nothing to help this situation, since the basic problem at this point is not insufficient information but information overload.

specific market areas, and if shopping and information costs are high, on the instruments available from the specific lenders any given borrower contacts. We have very little information on the instruments available in specific areas but we know that some types of mortgages (for example, PLAMS and SAMs) have been available only in selected areas. We also know that many lenders offer very limited options: for example, of a large sample of savings and loan associations offering ARMs, two-thirds offer only one type of plan and only fifteen percent offer a plan that allows negative amortization.[1]

Standardization could increase the options available to most households by making it easier to do comparison shopping, and/or by encouraging lenders to offer most or all of the standard products. However, we need to learn more about the structure of local markets before we can be very definitive about this.

3. Perhaps the most conclusive indication of excessive diversity is the wide range of operational definitions on ARMs. For example, the nonstandard mortgages that FNMA has purchased cover six methods of adjusting the mortgage payment that do not involve payment caps (which are a significant contract feature), and 11 methods of dealing with negative amortization. As I argue below, differences in operational definitions do not widen choices in any meaningful way, and therefore contribute nothing to the market except confusion.

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[1] In 1982, secondary market transactions in GNMAs amounted to about 80 percent of the average stock during the year.

[1] AMIC, *Adjustable Type Mortgages*, Survey No. 3, October 1982.

Let me now turn to my presuppositions or "first principles" about how to design a good menu of mortgage instruments.

First, the menu should be neutral as between the needs and preferences of borrowers and lenders, relying on the price system to balance the advantages and disadvantages of loan provisions to one or the other. Menu building is thus the antithesis of menu determination through the political process. In the latter case, design characteristics favorable to lenders are pressed by them or their representatives, and the outcome depends on relative political clout.

In retrospect, it seems clear that the political energy expended in the struggle between FRMs and ARMs in the period between the early 1970's and 1979 was a terrible waste. We need both. The same point can be made about due-on-sale clauses on FRMs. A good menu will have FRMs with and without due-on-sale clauses.

For a neutral policy to be effective, however, requires continued freedom from usury laws and similar constraints on mortgage contract terms. Such freedom assures that the instruments on the menu will also be available in the marketplace. It also requires explicitness and clarity regarding the characteristics of every type of contract.

Second, the menu should cover the gamut of borrower and lender needs, consistent with some reasonable constraints on default risk. Let me illustrate this with the case of interest rate risk exposure, which is the crux of the argument (now hopefully obsolete) regarding the relative merits of FRMs and ARMs. An FRM that is assumable and has no prepayment penalty clause places all interest rate risk on the lender. An ARM in which the interest rate is tied to a short-term market rate, and in which the rate and mortgage payments are adjusted frequently, without any limits or constraints, places all interest rate risk on the borrower. Both types of instru-

best served in this way. For example, home buyers who are so concerned about mortgage payment uncertainty that they categorically prefer an FRM are not best served by forcing lenders to offer only FRMs. If lenders are able to negotiate ARMs with borrowers who are not so traumatized by the prospect of mortgage payment uncertainty, they will offer FRMs at better terms to those who have the strongest preference for them (see below).

Third, the menu should provide a reasonable degree of continuity between the extremes of borrower and lender preference. For example, a menu in which the two instruments described in the preceding paragraph are the only ones available does not have sufficient continuity; it allows no allocation of interest rate risk exposure between the two polar cases. This would not be a serious problem for lenders who could probably achieve close to their desired interest rate risk exposure by adjusting the proportions of the two types of instruments in their portfolio, but it would be very inefficient for borrowers having to choose one of the polar cases.

Fourth, to the degree possible, the menu should anticipate the needs of borrowers and lenders under a variety of conditions. It would be a mistake to base the menu on what is currently fashionable in the market, since this can change rapidly. It would be equally foolish, of course, to believe that we are smart enough to anticipate all the needs that might emerge in the future.

Finally, the menu should exclude instruments that lend themselves to confusion, and perhaps instruments that cater to household myopia. In the first category I would place the ARM widely advertised by Empire of America Federal Savings Association. This one-year ARM is offered at a rate well below the rate offered by other lenders but unlike other one-year ARMs the rate increases at the end of the first year if the one-

market rates, which in fact a rate increase occurs if market rates are stable.[1]

Some instruments incorporate the potential for springing unpleasant surprises on the borrower or the lender in the future. Borrowers particularly may suffer from myopia and not think very much about what may happen further down the road; in many cases they are not counseled by disinterested parties, or have access to reliable information.

There are two specific types of instruments that raise the greatest concern on this score. One is the RAM, designed for elderly homeowners, which is an area the Roundtable will sidestep for the time being. The second, which is much more important, is the five year rate adjustment ARM with no payment caps, which from the borrower's standpoint is equivalent to a five year rollover mortgage. Evidently many households find this a fairly attractive instrument because of the five years of payment stability. What we don't know is how many of them are myopically ignoring this danger of a major shock at the end of the period, and would be unable to deal effectively with such a shock. (A method of mitigating shock on 5-year ARMs is presented below.) We may get some insights from a study that is just getting underway of five year rollover in 1981 and 1982.[1]

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[1] Let CR_o = the initial contract rate on the mortgage
CR_1 = the contract rate on the mortgage after one year
MR_o = the current index market rate
MR_1 = the index market rate after one year
S = the spread added to the index rate to produce the mortgage rate
MR_b = $CR_o - S$

Then:
$CR_1 = MR_1 + S$
$CR_1 = CR_o = MR_1 - MR_b$

If $MR_b = MR_o$, then $CR_o - CR_o \times MR_o$, which is what the borrower ordinarily expects. But if MR_b below MR_o, then $CR_1 - CR_o = (MR_o - MR_b) + (MR_1 - MR_o)$. The rate will rise at the end of the first year by the amount that MR_o exceeds MR_b.

By far the best protection against the danger that myopic households will be entrapped by instruments that may generate surprises they cannot handle is to make sure that they are offered instruments they can handle. Options are a good counter to myopia. This underscores the central importance of the gamut and continuity principles advanced earlier.

IV. Principles of Standardization – What Should Be Standardized?

Assuming a given type of instrument is to be on the menu, what characteristics should be standardized? As a first cut at this I distinguished three types of instrument characteristics. First, price variables including the contract rate, fees, and share of appreciation of SAMs, should never be standardized. These are the focal points of negotiation between borrower and lender, and they should be open to negotiation.

Second, operational definitions which *have no significant bearing on risk and* return should always be standardized. Some definitions are already standardized. For example, the mortgage "rate" is customarily defined as one-twelfth of the stated annual rate applied to the month end balance and paid one month later. There are many other ways to define and operationalize the rate but this one has become standard. In contrast, a prepayment penalty may be expressed as a specified number of months' interest, as a percent of the balance, or in other ways. As noted earlier, the rate adjustment method used on ARMs varies widely and can be a major source of confusion, as on the Empire mortgage.

The reason for standardizing operational definitions is that it is much less important exactly how the provision is defined than that it be uniform through- important because they affect default and interest rate risk to the lender, and the magnitude of the financial burden assumed by the borrower. Risk parameters include the loan-value ratio and the maturity; on ARMs they include the rate adjustment period and payment and negative amortization caps; on GPMs or GEMs they include the rate of graduation; on SAMs they include the time at which the accumulated appreciation is due, and so on.

Standardization of risk parameters reduces flexibility in accommodating the instrument to specific requirements of borrowers and lenders. On the other hand without some standardization there would be too many combinations and excessive diversity. Hence, a compromise is needed.

Consider the graduation provisions of GPMs. Since the payment can rise by any percentage, and for any period up to the maturity, there are potentially an infinite number of combinations of percentage increases and periods of increase. However, we can follow FHA's lead and specify a limited number of combinations that suffice to meet most requirements. We compromise the need for flexibility and the need for standardization.

V. Ways of Assessing Borrower Needs

Since an appropriate mortgage menu will meet the needs of borrowers and lenders, the first step should be to specify these needs. Borrower needs are the more difficult to assess, and I will begin by discussing various ways to do this.

One way to assess the mortgage instrument needs of borrowers is to draw inferences from theoretical models of "plausible" (rational) behavior under varying conditions. Some interesting studies of this type have been done but their conclusions are either very general

rate mortgages.[1]

2. Assuming lenders are risk averse and price interest rate risk accordingly, the optimal contract for a typical household is likely to call for some but not complete protection against interest rate risk.[2]

3. In a world of high expected inflation and no uncertainty, households would be willing to pay a very substantial premium to obtain GPMs, even more for SAMs, and the most for PLAMs, relative to FRMs that carry rates reflecting the anticipated inflation.[3]

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[1] See Thomas Mayer, ***Variable Interest Rate Mortgages and Household Risk,*** Working Paper Series No. 21, University of California at Davis, Nov. 1972. Economists generally view ARMs as less disadvantageous to borrowers, relative to FRMs, than borrowers themselves. The studies argue that many borrowers would be better off with ARMs, but surveys of households reveals only a small number expressing that view. There are a number of possible reasons for this: (1) the surveys may allow the household to think of FRMs as assumable and having no prepayment penalty whereas the economist is apt to view the FRM as not having these options; (2) the household tends to focus on the nominal mortgage payment and is concerned with up side risk only whereas the economist postulates that the household should be concerned with the real mortgage payment and this attitude toward risk should be symmetrical - that is, the household should be as concerned about a decline as about a rise in the real mortgage payment; (3) economists have a bad habit of assuming that if personal incomes in general rise as fast as the price level, it is perfectly safe for individual households to assume that their income will rise this fast also; a legitimate concern of households, that their *incomes will not keep pace,* is given insufficient weight, and in some cases ignored altogether.

[2] See Robert H. Edelstein, *The Alternative Mortgage Instrument: a Suggested Analytic Approach,* Federal Home Loan Bank of San Francisco, Dec. 1982.

[3] See James Alm and James R. Follain, Jr., Alternative Mortgage Instruments: Their Effects on Consumer Housing Choices in an Inflationary Environment," *Public Finance Quarterly,* April 1982.

want. This approach also has grave shortcomings associated with the lack of familiarity of most households with various types of alternative mortgages, and their inability to think through the implications of different arrangements for their own financial situations. Hence, the information obtained from this approach also tends to be very general, for example:

"Americans tend to prefer adjustable mortgages that combine narrow ceiling (on interest rates or payments) with long periods between rate adjustments."[1]

It is possible to obtain more specific and detailed information from households in a survey format in which the potential consequences of a specific instrument under various possible future scenarios are clearly spelled out, preferably in chart form. An attempt to do this was made in an important study by Colton, Lessard, Modest, and Solomon which generated some useful data.[2] For example, about half the middle aged homeowners with low-middle income indicated a willingness to pay a ¼ percent higher rate to avoid a prepayment penalty equal to about 2½ percent of the loan balance (the other half was not willing to make this trade off).

A third approach is to survey borrowers some time after they have taken out a mortgage. This approach can provide some useful perspectives but it is of course heavily conditioned by economic and financial developments during the period between the mortgage origination and the survey date. The extensive

Kaufman and Albaum, for example, suffers from the fact that at the time of their study (late 1976) rates on VRM contracts had not been adjusted at all.

A fourth approach is to survey lenders (or other intermediaries such as realtors) who have offered different types of mortgages to households regarding how the households respond. Relative to surveys of households, this approach has the great merit of providing a type of market test in an actual transaction context, which should be more reliable than expressions of opinion in the abstract. However, information regarding borrower reactions is suspect unless one knows the alternatives offered or available to the potential borrower at the same time, as well as the relevant terms on the alternatives. I don't know of any studies that use this approach.

The approach used here is to bring to bear on the problem of defining borrower needs all the useful information that can be gleaned from studies using the different approaches described above, as well as insights of a more general nature.

VI. Borrower Needs

A. Mortgage Payment Certainty

There is no question that many borrowers have a strong preference for mortgage payment certainty, which means fixed interest rates, even if they must pay a high price for it. In the study by Colton et al. about three-fourths of the households surveyed by mail about their attitude toward ARMs stated that they were "very concerned" about "the uncertainty about future payments;" an equal number were very concerned about "the possibility that income would not keep up with payment changes," and four-fifths were very concerned with "the possibility that interest rates will only go up not down" (p. 67). In their

adjustable (uncapped) ARMs, most borrowers preferred the former.

B. Minimizing the Burden of Mortgage Payment Uncertainty

While FRMs carry complete (nominal) mortgage payment certainty, mortgage payment uncertainty under ARMS can vary widely. If FRMs are very costly, some borrowers might prefer an ARM that has *some* mortgage payment uncertainty, depending on type and degree. Three related aspects of payment uncertainty should be distinguished:

a. Mortgage payment *instability:* frequent changes in the payment.
b. Mortgage payment *shock:* a very large change in the payment at one time.
c. Mortgage payment *drift:* persistent upward trend in the payment.

These problems can be mitigated by various special provisions or characteristics of the ARM contract. A summary of such provisions and how they affect borrower concerns is shown in Table 1. Table 1 suggests three points that are of great importance. First, there are many ways to deal with mortgage payment instability and mortgage payment shock. These methods may not be very costly to investors.

Second, some provisions that moderate payment instability can aggravate payment shock, though the second affect can be neutralized by other provisions.

Third, to moderate uncertainty regarding payment drift, the contract must constrain the extent to which the mortgage rate is adjusted over the life of the contract. (Recall the 82% of households surveyed by Colton, et al. who said that they were afraid that interest rates would only go up, never go down.) Two ways of doing this are shown in Table 1: stipulating a maximum rate change over the life of the contract, or adjusting the rate

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[1] Federal National Mortgage Association, *Buying a Home in the Eighties: a Poll of American Attitudes,* a study conducted by Louis Harris and Associates, September, 1982.

[2] Kent Colton, Donald Lessard, David Modest and Arthur Solomon, "National Survey of Borrowers Housing Characteristics, Attitudes and Preferences," in *Alternative Mortgage*

Relationship of Various Contract Provisions of ARMs to Major Concerns of Borrowers Regarding Mortgage Payment Uncertainty

	Mortgage Payment		
Contract Provision	*Instability*	*Shock*	*Drift*
Infrequent rate and payment adjustments	+	-	0
Maximum rate change per period	+	+	0
Less frequent rate adjustment than payment adjustment	+	-	0
Cap on payment change per period	+	+	0
Separate rate for balance and payment	+	+	
Sluggish rate index	+	+	0
Partial rate adjustment	+	+	+
Maximum rate change per contract	0	0	+

Note: × means the provision helps; – mean it hurts; 0 means it is neutral.

While most households don't like mortgage payment uncertainty, it is in the interest of households generally if a spectrum of such instruments (with uncertainty of different types moderated in varying degrees) is available in the market place. A sizeable group of households, while preferring the mortgage payment certainty of the FRM, is prepared to trade off some uncertainty against other favorable contractual features of ARMs that leaders are willing to offer. As noted earlier, the typical rational borrower would choose to accept some mortgage payment uncertainty if pricing by lenders reflects "risk aversion" on the lender's part. Favourable pricing would include a lower interest rate, assumability, or a rising payment stream that would allow the borrower to assume a larger mortgage. Since a large segment of the mortgage lending industry has been traumatized by rising interest rates, it is plausible that many lenders *are* risk averse and in order to protect themselves are prepared to offer households a "good deal" on ARMs whenever there are concerns that rates might rise.

There are some households whose aversion to mortgage payment uncertainty is so strong that they would prefer an FRM to an ARM at almost any terms that lenders might offer. The interesting point is that relative to the situation where they must offer FRMs to every-

can negotiate ARMs with other borrowers whose preferences for mortgage payment certainty are less strong.[1] The reason is that a lender with a portfolio composed heavily of ARMs will not be as averse to the interest rate risk associated with FRMs as a lender with only FRMs in its portfolio.

C. Correcting "Tilt"

On fixed payment mortgage contracts, the ratio of payment to borrower income declines ("tilts") to whatever degree the borrower's income rises over time. Even in a zero inflation (but positive growth) world, the typical borrower will experience a rising income and the payment to income ratio will tilt as a result. If transactions costs in buying houses were small, this would not be a problem because households could keep "buying up" as their incomes rose. But transactions costs are high, and therefore many households who confidently anticipate rising incomes prefer a mortgage with rising payments - a GPM.

The tilt problem becomes most serious however when there is inflation, which raises interest rates and mortgage payments on level payment loans, as well as the rate at which incomes are expected to rise. This is why the pressure to develop GPMs has arisen only in recent years when long term interest rates have come to incorporate signifi

In a world of volatile interest rates households value prepayment and assumption options. The value of these options depends on a) the extent to which the rate on the instrument may diverge from the market rate on new loans, and b) the period over which the divergence will persist. Hence, the options are most valuable on FRMs, the more so the longer is the duration of cash flows. The options are valuable on ARMs only to the degree that rates are not freely adjustable to the market. Some illustrative possibilities are shown in Table 2.

E. Trading Off Interest Rate Against Value Appreciation

Many households would like the opportunity to exchange a portion of the appreciation on their homes for a lower interest rate. The shared appreciation mortgage (SAM) provides an opportunity to make this trade off. The SAM is attractive because the interest rate is fixed as well as reduced, although there is no reason in principle why SAMs could not carry a variable rate.

F. Limit Declines in Home Equity

While households are often willing to trade off a portion of their equity appreciation against lower mortgage payments, many are also highly averse to the risk that their equity will decline. To such households, contracts allowing unlimited rate variability combined with payment caps are something of a mixed blessing, since marked rate increases would result in substantial negative amortization. Payment changes and negative amortization can both be capped only if interest rate changes are capped.

place a negative value on options because they recognize that they have problems in making difficult choices and they prefer to lock themselves into the "right" choice in advance. This might be described as "being rational about your own irrationality." Self-imposed "forced" saving is probably the best illustration of this. The appeal of forced savings is why many households prefer the standard FRM with its built in amortization feature to an interest only mortgage with a free prepayment option. For the same reason some households are attracted to the GEM which, from the households' perspective, differs from a standard FRM only by making rising payments compulsory rather than optional.

FRM	*Value (Basis Ponts)*
Standard	100
GPM	125
GEM	75
ARM	
1. Monthly rate and payment adjustment tied to 90-day Bill rates, no adjustment limits.	0
2. Adjustment in rate and payment every 2½ years tied to 2½-year note rate, 5% limit on rate changes over life of contract.	25
3. Adjustment in rate and payment every 5 years, tied to 5-year note rate, 2½ percent limit on rate changes over life of contract.	50

VII. Lender and Investor Needs

A. Loan Originators versus Investors

A question arises as to whether it is useful to distinguish loan originator and investor needs in developing a mortgage menu. The more useful distinction is between originators *and* investors who value marketability, and those who don't. This corresponds to a distinction between two groups of instruments: those that are or might be sold in the secondary market after origination and may be sold again by the purchaser, and instruments that are either permanent retained by the originator are customized for a specific buyer who intends to retain them. Marketability is an essential attribute of the first group of instruments and these should be the focus of our effort to create a standardized menu.

With one possible exception, however; there is no conflict between the two groups. (The one possible area of conflict is the rate index used on ARMs, which is discussed later.) Those who want a special type of instrument that is not on the standard menu and are prepared to forego marketability can and will go ahead and do it. Some volume of such activity will always exist.

It is likely, however, that such activity will decline as the standard menu becomes established. To the degree that the standard menu covers the gamut of lender and investor needs, the benefits of close tailoring to specific requirements will decline. In an increasingly dynamic financial system, furthermore, it becomes increasingly prudent for lenders and investors to assume that sales may be required in the future even if retention is contemplated for the time being.

B. Potential for Passthrough Transformation

It could be argued that investor needs should not carry the same weight as borrower needs in determining the appropriate menu of instruments because of the potential that exists to transform mortgage characteristics through the pooling process. If existing instruments don't exactly fit investor needs, pooling can transform the characteristics of the instrument so that they do fit.

Different types of transformation should pool of mortgages carries less default and delinquency risk than the mortgages themselves, and the cost to the investor of assessing and controlling such risk is substantially lower. This reflects the standardized requirements on the characteristics of mortgages in the pool, as well as various types of insurance provided by the issuer and/or third parties.[1] For the same reasons, passthroughs are more liquid. Risk and liquidity transformation do not significantly alter the cash flows on the underlying instrument, however, and therefore have no implications for an appropriate menu at the origination level.

A second type of transformation involves pooling different types of mortgages to create a certificate that is a weighted "blend" of their characteristics. For example, if fifty percent of the mortgages in a pool by volume are fixed rate and fifty percent are adjustable rate, the rate on the passthrough certificate will change by half as much as any change in the index underlying the adjustable rate mortgages in the pool.[2] The potential for this type of transformation would be pool under specified circumstances and replacing them with others. (Under existing law active management has adverse tax consequences, but these consequences may be eliminated soon).

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[1] For further discussion see Jack M. Guttentag, ***Mortgage Passthroughs: Structure and Policy,*** Mortgage Insurance Companies of America, June 1982.

[2] No such pools have yet been created as far

This type of transformation, however, does not do anything for the investor that the investor cannot do for himself, provided the investor has a large enough portfolio. Hence, pooling to create attractive instrument "blends" is directed mainly toward small investors, including individuals, and it has no bearing on the menu problem.

The third type of transformation involves the assumption of special financial responsibilities by the issuer. This is done now only to a very limited degree, by the issuer guaranteeing the mortgage payment on a specified date. In principle, this type of transformation can be used to create any type of instrument, provided the certificate issuer is prepared to accept the associated financial responsibility. Fixed rate mortgages, for example, can be converted into variable rate certificates if the issuer is willing to accept the interest rate risk.[1] Call protection could also be provided in this way. This type of transformation does provide an alternative to meeting investor needs at the origination level.

Whether it represents the most effective method of meeting investor needs is another question. Transformation imposes a cost on the party assuming the financial responsibility implied by the transformation. If it is less costly to impose the burden on the borrower, then it is better to incorporate the desirable feature in the mortgage itself. For example, it would make no sense to create a GEM-type certificate out of a pool of standard mortgages if mortgage borrowers are willing to

borrowers are strongly resistant, it is not clear that transformation is a cost effective method of shifting financial responsibilities among the investor community. On the face of it, the futures and options markets should be better. Consider, for example, the case of an investor with liabilities of long duration who wishes to protect himself against a decline in interest rates at a time when other investors want to hedge against a rise in rates. The first investor would find it much less costly to sell futures contracts than to convert a pool of fixed rate mortgages into a variable rate pool, although admittedly the latter procedure allows for a longer-term hedge than is possible in the futures market. In any case, no market demand has surfaced to create this type of transformation and until it does it seems appropriate that investor needs should be fully met by the basic instruments.

C. Standard Concerns: Rate, Default, and Delinquency Risk

Very broadly, mortgage lenders are concerned with the stated (or expected) return, with default and delinquency risk, and with interest rate risk. The first two are inherent in the mortgage instrument itself while the third depends on how the instrument fits into the lender's overall portfolio of assets and liabilities.[1]

Thus, all lenders view higher loan-value ratios as more risky, other things the same, but mortgages of long duration may carry high interest rate risk to some lenders and low interest rate risk to others depending on the duration of their liabilities.[2] Thus mortgage design should allow for lender imposed limits on variables that affect default and delinquency risk, such as the amount of permitted negative

D. Protection Against Interest Rate Risk

Portfolio management techniques for controlling interest rate risk exposure focus on matching the duration of assets and liabilities. Since different types of institutions have liabilities of widely varying duration, a mortgage menu should cover a wide range of durations. FRMs should cover durations in the intermediate to long range and ARMs should cover durations in the short to intermediate range.

Mortgage duration, however, is not precisely determinable in advance because of prepayments. On FRMs especially actual durations can diverge significantly from expected durations. Investors want this variance to be as small as possible, but even more important they want divergences to be unbiased, that is, unrelated to market interest rates. If the mortgage contract allows biased divergences between expected and actual durations, the investor wants to be compensated for this risk.

The absence of prepayment penalties and enforceable due on sale clauses allows a seriously biased divergence between expected and actual durations. In line with the general theme of this paper, FRMs that offer borrowers the valuable options that generate biased divergences should and will exist in the market if the options can be fairly priced. And FRMs without such options also should exist.

The effective duration of an ARM is calculated over the period between rate adjustments, as if the loan balance was repaid on the rate adjustment day. On a thirty-year ARM on which the rate is adjusted every 12 months, the effective duration would be 12 months.[1] Strictly speaking, however, this procedure for calculating duration is justified only if the rate adjustment is at the complete discretion of the lender. This would be the case on a rollover, but not on an ARM where the only an approximation to the rate that would be posted by the lender if the mortgage was a rollover.

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[1] If a third party assumes this risk it is called interest rate risk insurance.

[1] For purposes of this paper we can ignore another important portfolio consideration, namely, how the realized return on mortgages is correlated with that on other types of assets.

[2] Duration is the weighted average length of

There is no perfect solution to this problem but the best is to assure that the rate indexes used have the widest applicability possible. This means that rate indexes should cover a wide range of maturities. In addition, any index used for ARMs should not be affected by changes in default risk associated with the financial status of the issuer, and should cover instruments traded in broad and active markets. These considerations dictate the use of rate series covering US Government securities.

Some lenders prefer to use a rate index they believe is most highly correlated with their cost of funds. The "California Mortgage," for example, is tied to the regional cost of funds index calculated by the Federal Home Loan Bank of San Francisco. The problem with cost indexes is that they pertain only to a specified group of lenders (those covered by the index used). These indexes are affected by changes in the mix of liabilities carrying different rates among the specific lenders covered by the series, as well as by the accounting conventions used by these lenders. For lenders not covered by a given index, that index is likely to be less representative of costs than an open market rate. ARMs tied to a cost index are thus likely to have less general appeal to investors than those tied to open market rates.

VII. A Proposal for Level Payment FRMs

The principle issues that arise in connection with level payment FRMs are call protection and assumability, which are considered in turn.

The neutrality, gamut and continuity principles suggest that FRMs should range from types that have no call protection, to types with complete protection, with some in-between.

Complete call protection can be as a payment on termination that would leave the investor indifferent as to whether the mortgage is prepaid or not. More precisely, complete protection is defined as that payment which, when combined with repaid loan balance and reinvested at the market yield, would provide cash flows identical to those that would have been received if the old mortgage had remained on the books.[1] For convenience, I will call this payment, expressed as a percent of the loan balance on termination, the PCP. The PCP is indexed, that is, tied to the current market yield.

Table 3 shows the PCP on a fixed 15% 30-year mortgage. It shows, for example, that if the 15% mortgage is three years old and the current market yield is 12%, the PCP is equal to 22.2% of the loan balance. The PCP is higher the lower the current market yield and the longer the period remaining to maturity of the old mortgage. The PCP is a useful standard for assessing any specific prepayment provisions.

Table 4 shows the degree of protection provided by one type of prepayment provision that used to be fairly common, namely, a payment equal to six months of interest on the termination balance. This payment is taken as a percent of the PCP in every case. For example, if the old mortgage is three years old and the current market yield is 12%, a payment equal to six months interest would be 33.8% of the PCP.

This type of prepayment provision was once considered quite adequate, and it is obvious from Table 4 why this is so. If the current market yield is only modestly job of keeping the investor whole. If the current market yield is 14%, for example, six months interest is greater than the PCP. But if the market yield is 8% and the old mortgage has not much aged, six months interest amounts only to about one-tenth of the PCP. In a world of volatile interest rates, the conventional type of prepayment penalty does not provide much call protection.

On the other hand, PCP payments can get very large. One way to make the PCP concept more palatable is to make the indexed payment on termination symmetrical; it would call for a payment *to* the borrower when mortgages were terminated at a time when market yields were above the rate on the old mortgages. Such a mortgage would automatically solve the due-on-sale problem since, if the lender had to pay the borrower the PCP on termination when rates rose, the lender would be indifferent as to whether the loan was assumed or not.

A symmetrical PCP is conceptually very appealing but I have not found much interest in it by lenders, partly because of its complexity and partly because call protection is not viewed as politically saleable.[1] A single standardized prepayment provision offering something less than complete call protection may be all that is feasible at this time. How should such a provision be defined?

Historically, prepayment penalties have been expressed as a percentage of the loan balance, or as a specified number of months interest, and sometimes the required payments have declined with the age of the mortgage. In a world of volatile interest rates, these types of provisions are far from satisfactory. A preferred approach to partial call protection would be to take a specified percent of the PCP, or cap the PCP at some level. Complexity could be reduced while retaining the important principle that the payment be indexed by resorting to a simplified rule of

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[1] Actually it would be slightly less than 12 months when account is taken of the monthly payments received during the first eleven months.

[1] Assume the old mortgage carries a contract rate of Ro, had an original maturity of m years, a monthly payment of Po, and has a balance of Bt after t years when it is prepaid. The new

[1] Unlike other contractual features, many states

Prepayment Penalty on a Fixed-15% Thirty Year Mortgage that Provides Complete Call Protection, at Varying Current Market Yields and Age of Mortgage (Payment as a Percent of Loan Balance at Termination)

Age of Old Mortgage	*8%*	*9%*	*10%*	*11%*	*12%*	*13%*	*14%*
3 years	68.7	54.6	42.3	31.6	22.2	13.9	6.5
6 years	64.4	51.5	40.2	30.2	21.3	13.4	6.3
9 years	59.3	47.8	37.5	28.3	20.0	12.7	6.0
12 years	53.3	43.3	34.2	26.0	18.5	11.8	5.6
15 years	46.5	38.0	30.2	23.1	16.6	10.6	5.1
18 years	38.7	31.9	25.6	19.7	14.3	9.2	4.4
21 years	30.0	25.0	20.2	15.7	11.5	7.4	3.6
24 years	20.6	17.3	14.1	11.1	8.2	5.3	2.6
27 years	10.6	9.0	7.4	5.9	4.4	2.9	1.4

Table 4

Six Months Interest on Balance of a 15% Thirty Year Mortgage at Time of Prepayment, as a Percent of the Payment Required to Compensate the Lender Fully, at Varying Current Market Yields and Age of Mortgage

Age of Old Mortgage	*8%*	*9%*	*10%*	*11%*	*12%*	*13%*	*14%*
3 years	10.9	13.7	7.7	23.7	33.8	53.9	114.6
6 years	11.6	14.6	18.7	24.9	35.3	56.1	118.7
9 years	12.6	15.7	20.0	26.5	37.4	59.2	124.7
12 years	14.1	17.3	21.9	28.9	40.5	63.7	133.6
15 years	16.1	19.7	24.8	32.4	43.1	70.6	147.2
18 years	19.4	23.5	29.3	38.0	52.5	81.7	169.1
21 years	25.0	30.0	37.1	47.7	65.4	100.9	207.4
24 years	36.4	43.3	53.0	67.6	91.9	140.6	286.6
27 years	70.6	83.2	100.9	127.4	171.7	260.2	525.6

every 20 basis points that the mortgage rate exceeds the market rate on long term government securities at termination. A somewhat more elaborate rule of thumb would vary the number of basis points with the age of the mortgage, for example:

year		
	1	15 basis points
	2	20
	3	25
	4	35
	5 and thereafter	50

If political considerations force us to compromise the gamut principle at one end of the call protection spectrum, there is no need to compromise it at the other end. The menu should continue to include mortgages with no call protection, which of course would be priced less favorably to borrowers than those carrying the standardized prepayment provision.

B. Assumability

Although in principle assumability could be made a continuous function by specifying a range of terms under which assumptions were allowed, the associated complexity probably is not worth it. For all practical purposes it is sufficient if mortgages are either fully assumable or not assumable (due-on-sale).

The menu of level payment fully amortized FRMs should thus include the following:

1. No prepayment penalty, fully assumable;
2. Standardized prepayment penalty, fully assumable;
3. No prepayment penalty, not assumable;
4. Standardized prepayment penalty, not assumable.

The GPM is designed to solve the borrowers "tilt" problem referred to earlier. The initial payment is below that on a standard mortgage of the same size, rate and term, rising over the specified graduation period to a level above that on a comparable level-payment loan, amortizing the loan fully over the remaining term.

Other things the same, GPMs carry greater default and delinquency risk than comparable level payment loans. Since income limits are based at least partly on the initial payment, some borrowers will qualify for GPMs who would not qualify for level-payment loans of the same size - this is, indeed, a major purpose of the GPM. In addition, the initial payments on a GPM do not fully cover the interest, resulting in negative amortization. Since duration is longer, furthermore, GPMs carry greater interest rate risk to investors with short liabilities.

What should be the maximum rate of graduation on a GPM? If the future inflation rate was known with certainty, and if it was also known that a specific borrower's income and house value would rise at this rate or better, the maximum rate of graduation could safely be set at the inflation rate.[1] The inflation rate is not known, however, and even if it were the variance in growth rates of individual incomes and house values rises with the general infla-

gage in a non-inflationary world, the maximum rate of graduation must be set below the current expected inflation rate, or the period of graduation must be limited, or both.

A rule of thumb that might be used in establishing the maximum rate of graduation is the following:

$G = a(I - 5)$

where G is the maximum rate of graduation, I is the rate on an unconstrained ARM with a short adjustment period,[2] I -5 is a rough estimate of the expected rate of inflation on the assumption that the real rate plus the net costs of mortgage lending sum to 5%, and (a) is a coefficient that can take values between 0 and 1, depending on how much default risk we are prepared to entertain. If (a) is set (arbitrarily) at .8 for a graduation period of 5 years, and .6 for a period of 10 years, and if the ARM rate is 12½% (about the rate prevailing in May 1983), we get maximum rates of graduation of 6% and 4½%, respectively.

At an interest rate of 12% the loan balances rise to maximums of $1,060 and $1,137 on the 5-year and 10-year GPMs respectively, per $1,000 of original loan. Higher rates increase the amount of negative amortization but only on the 10-year GPM might this become a problem. While the interest rate must rise to over 50% before the maximum loan balance hits $1,250 on the 5-year GPM, this limit is reached at a rate of 18% on the 10-year GPM.

Obviously the maximum rates of graduation of GPMs should not be set for all time but require occasional adjustment based on changes in expected inflation.

While the FHA experience is that most borrowers electing a GPM prefer the highest rate of graduation offered, some do not. To meet the requirement of continuity two other rates should be available that are perhaps half of the maximums. This may overload the menu unduly,

tant on GPMs than on level payment FRMs (because of the longer duration of GPMs). Four combinations of graduation rate and period, and four combinations of prepayment and assumption options would result in sixteen separate instruments.

The GEM is also a rising payment FRM but the initial payment is set at the same level as the initial payment on a level payment FRM, and rises from that point. The increasing payment reduces the balance at an accelerated rate and results in the mortgage being paid off before term. The higher the rate of graduation the more rapidly the mortgage is paid down. With a 5 percent rate of graduation for example a 14 percent thirty year GEM is paid off in about 12 years.[1]

In one sense the GEM provides nothing for the borrower that a level payment FRM doesn't provide. Almost all level payment mortgages allow borrowers to increase their mortgage payments and apply the overage toward reducing the balance. The GEM simply locks the borrower into a predetermined pattern of rising payments, which the borrower could do voluntarily, if so inclined, with the level payment mortgage.

There are two qualifications to this generalization, however. The first is that if the pattern of cash flows on a GEM is so attractive to the lender that the lender is prepared to offer significant inducements to obtain it, then it may well be to the advantage of the borrower to have this option. This point is simply an application of the general principle that any instrument that is particularly attractive to one of the two parties in the mortgage transaction should be available and its availability is likely to benefit the other party. At least it will benefit some of the borrowers not extremely high.[1]

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[1] If the future inflation rate is known with certainty it will be accurately reflected as an inflation premium in the current mortgage rate. If the rate of graduation was set at the inflation rate, the GPM would be exactly the equivalent in real terms of a standard mortgage with no inflation premium in a zero inflation world. The borrower's payment to income ratio would be constant throughout the life of the GPM at the same level as the level payment on a standard mortgage, and the ratio of loan balance to current property value on both mortgages would follow exactly the same paths over time.

[1] Some lenders have also offered "step" GEMs where the payment does not begin to rise until some years ahead; with the same rate of graduation they have a longer life than the standard GEM.

The second qualification is that some households might have a positive reaction to the GEM precisely because of the lock-in quality. These are households who anticipate rising incomes and appreciate the budgetary discipline that rising payments would involve. They prefer to be forced to save.

I suggest four GEMs carrying payment increases of 2, 3, 4, and 5 percent, and all carrying free assumption and prepayment options. These options are much less valuable on GEMs than on level payment FRMs and GPMs. If it was considered desirable to incorporate all four prepayment and assumption options on GEMs, I would propose limiting the menu to the 2 percent and 4 percent variants.

It is also possible to devise GPM-GEM combinations that have an initial payment below that on a level payment loan, as on the GPM, with a payment schedule that amortizes the loan before term, as on a GEM. For example, if the period of payment increase on a 7½ percent 5 year GPM is extended to 9 years without changing the payment schedule in the first 5 years, the GPM becomes a GPM-GEM that pays off in 15 years. We can do without these for the time being.

IX. Proposed ARMs

The ARM menu should meet the requirements of investors for mortgages carrying a wide range of rate adjustment periods. (While there is no reason in principle why the rate adjustment period must correspond to the maturity of the interest rate index, investors seem to be much more comfortable when they do correspond, and I have adopted this convention.)

While my a prioris were that the gamut of rate adjustment periods might run from one month to 10 years, investors have suggested that 6 months to 5 years was

The ARM menu also should meet the diverse capacities of borrowers to deal with mortgage payment uncertainty. Mortgage payment instability is reduced by long payment adjustment periods, mortgage payment shock can be reduced by payment caps, and payment drift can be constrained by interest rate caps.

An early cut at a proposed menu is shown in Table 5. From a borrower's perspective Plan 1A for those who need no special protection against mortgage payment uncertainty. Plans 1B and 1C reduce mortgage payment instability by adjusting the payment every three years and five years respectively. Plans 2B and 2C add shock protection in the form of a maximum change in mortgage payment. And Plans 3B and 3C add drift protection by specifying a maximum 5% change in rate over the life of the contract. Thus, these plans become increasingly protective of the borrower. This type of logical sequencing would, I believe, facilitate pricing by lenders and comprehension by borrowers.

The four proposed ARMs with payment caps allow for the possibility of negative amortization. When the interest rate is also capped (as in 3B and 3C), we can determine the maximum amount of negative amortization by assuming that the interest rate is raised by the maximum permissible amount on the first rate adjustable date. Some illustrative possibilities are shown in Tables 6 and 7. The payment caps can be fixed to limit negative amortization to any level we wish.

Thus, given the proposed 5% cap on the interest rate change, the proposed 15% and 20% payment caps on 3B and 3C would limit negative amortization to a maximum of 22% in both cases. Payment caps of 20% and 25% would keep negative amortization below 10%.

When the interest rate is uncapped as in 2B and 2C, payment caps result in potentially unlimited negative amortization. The following are ways to deal with this, in order of their likely appeal to investors

percentage of the current appraised value of the property. This makes more sense from the standpoint of the borrower but may appear troublesome to a secondary investor because of the need for appraisals.

3. Leave negative amortization uncapped. In principle, this should be more attractive to borrowers than alternatives 1 or 2, although some borrowers might be frightened by it.

4. Cap both the payment and negative amortization, which requires an implied interest rate change cap. This would be most attractive to borrowers, least attractive to investors, and could be implemented in many ways.[1]

From the standpoint of secondary market acceptability my soundings indicate an overwhelming preference for alternative one - a cap on negative amortization equal to 120 or 125% of the original balance. I have found great variability, however, in the contractual provisions for adjusting the payment in the event that the negative amortization limit is reached (or is projected to be reached before the next payment adjustment date). The question of how to adjust the payment when the negative amortization cap is reached is even more important on GPARMs which involve some negative amortization at the initial rate, and I will discuss it in Section X below.

Partly because of these complexities, I have found sentiment among Roundtable members to leave ARMs 2B and 2C off the menu - at least for the time being.

X. GPARMs

Any of the ARMs can be converted into a GPARM. Since borrowers preferring graduated payment mortgages tend to be economically "weak" in the sense of wanting to stretch their mortgage carrying

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[1] In the Philadelphia Area, 5 of some 130

[1] The Wachovia Adjustable Mortgage in effect uses this approach. While negative amortization is uncapped as long as the loan stays on the

ing graduated payment versions of the ARM plan carrying the greatest degree of payment uncertainty protection: 3C. This would extend the sequencing logic used in the proposed ARM menu. The proposed GPARMs would run for 5 years only, at graduation rates of 6% or 3%.

The major problem with the GPARM is the potential payment shock if interest rates increase and the contract requires that the loan become fully amortizing in year 6.

Some contracts allow the payment increase to continue for a second period, but require that the loan become fully amortizing at the end of the second period. In fact, if the interest rate increase is large, an extension of the graduation period may be very little help. For example, if the rate increase on the 6%/5-year GPARM is 5 percentage points, the payment increase to become fully amortizing in the 11th year is 42.1%, which is not much better than the 44.7% increase required in the 6th year.

Much the best procedure, when the rate increases by a significant amount, is to extend the graduation period *and* adjust the rate of graduation to eliminate payment shock at the end of the second period. The procedure is illustrated in Table 8 for a 12% GPARM on which the payment rises by 6% for 5 years. The table shows the maximum amount of negative amortization and the percent increase in the mortgage payment to amortize fully in the 11th year, for different interest rate increases at the end of the 5th year, and different rates of payment graduation during a second 5 year period. The boxed figures indicate the appropriate rate of graduation during the second period to meet the standard 25% constraint on negative amortization *and* to largely eliminate payment shock.

Proposed ARMs

Plan	*Interest Rate Index*	*Interest Rate Adjustment Period*	*Payment Adjustment Period*	*Maximum Payment Change*	*Maximum Rate Change Over Life of Contract*
1A	6 month T-bills	6 months	6 months	None	None
1B	3 year Treas. Sec.	3 years	3 years	None	None
2B	3 year Treas. Sec.	3 years	3 years	15%	None
3B	3 year Treas. Sec.	3 years	3 years	15%	5%
1C	5 year Treas. Sec.	5 years	5 years	None	None
2C	5 year Treas. Sec.	5 years	5 years	20%	None
3C	5 year Treas. Sec.	5 years	5 years	20%	5%

Consider the worst case, where the rate increases by 5 percentage points at the end of the 5th year. If the 6% payment increase is extended for another 5 years, negative amortization rises to 30.9%, and the payment increase in year 11 to become fully amortizing is 42.1%. The appropriate rate of graduation in the second period in this case is 10%, since this keeps negative amortization down to an acceptable 22.9%, and the payment increase to become fully amortizing in year 11 is only 10.5%.

Similarly, if the interest rate increase in year 5 is 4%, the appropriate rate of payment graduation in the second 5 year period is 8%. And so on. (The symmetry in this table is remarkable but coincidental). Even if the rate increase is only 1%, a 2% increase in payment for a second 5 years would be more palatable to most borrowers than a 13.5% increase in year 6.

There is no reason to restrict this procedure to a second period. For example, suppose rates do not increase at all during the initial 5 year period but rise by the maximum amount of 5 percentage points in the second period. While payment shock declines as a mortgage ages, a 5% increase at the end of the second period would still require a 28.6% increase in payment in the 11th year to become fully amortizing at that time. Hence, introducing a 5 year period of graduation even at that stage would be very useful.

It is evident also that this procedure of phasing in payment increases engendered by large rate increases need not be limited to GPARMs. Indeed, the procedure may be needed even more on straight

Maximum Loan Balance on 3-Year ARMs with Various Payment Caps and Interest Rate Caps (per $1,000 of original Loan)

	Maximum Interest Rate Change (Percentage Points)			
Maximum Payment Change (Percent)	*3*	*5*	*7*	*10*
7	1029* 1251 1214†			
10	1056			
12	1025	2140		
15	1011	1161* 1218 1103†		
20		1077	1520	
			1248* 1202 1083†	
35				1364
40				1243
45				1274* 1148 1039†

Note: * Denotes initial interest rate of 6%
†*Denotes initial interest rate of 20%*
All others are calculated at 12%

ARMs that have no payment caps. While the presumption is that borrowers who take out such mortgages can better withstand payment shock, this might not be the case. Some borrowers are myopic, and economic circumstances can change. The potential magnitude of payment shock on straight ARMs, furthermore, is unlimited.

XI. FNMA's Recent Changes in Standard ARMs and GPARMs

Recently FNMA rationalized and simplified its standard offerings of ARMs and GPARMs. The new FNMA menu corresponds more closely to that proposed in this paper.

The Agency now has three standard plans that use Treasury indexes of one, three and five years, with corresponding interest rate and payment adjustment periods. All have annual payment caps of 7½% and all have a 7½% GP option - for loan. All loans have a 25% cap on negative amortization, which overrides the payment cap.

I believe that FNMA would have done better to have incorporated an interest rate cap option on some mortgages rather than a payment cap option on all mortgages. Subordinating the payment cap to the negative amortization cap opens the way to serious payment shock down the road. The manner in which the negative amortization constraint is implemented, furthermore, aggravates the problem. FNMA requires that the payment must *become fully amortizing in the month in* which the 25% limit on negative amortization would be breached. If the interest rate on the GP version of the 5-year ARM rose from 12% to 17% at the first adjustment date and if the borrower elected to continue the 7½% payment increase, the negative amortization limit would be reached in the 102nd month. At this point the payment would be raised by 38%!. A better method of implementing the negative amortization cap is readily available.

XII. Final Comment

Because this paper covers work in progress, no "conclusion" as such is warranted. Much of what I have written about FRMs and ARMs will be revised, and the task of considering SAMs, PLAMs and RAMs within the same menu framework, has not yet begun. Hopefully it will begin soon.

Table 7

Maximum Loan Balance on 5-Year ARMs with Various Payment Caps and Interest Rate Caps (per $1,000 of Original Loan)

	Maximum Interest Rate Change (Percentage Points)		
Maximum Payment Change (Percent)	3	5	7
9.5	1240		
10	960* 1152 1112†		
15	1010		
18		1491	
20		1106* 1210 1076†	
25		1068	
30			1317
35			1178* 1133 976†

Note: * Denotes initial interest rate of 6%
† Denotes initial interest rate of 20%
All others are calculated at 12%

Table 8

Implications of Extending the Period of Payment Graduation of a 12% GPARM (Payment Graduation of 6% for Five Years), For a Second Five Year Period, at Different Assumptions Regarding Interest Rate Increases at the End of the First Period, and Payment Graduation During the Second Period

Interest Rate Increase,[1] Maximum Loan,[2] Percent Increase in Mortgage Payment to Amortize[3]		*Rate of Payment Graduation During Second Five Year Period*				
		10%	*8%*	*6%*	*4%*	*2%*
1%	Maximum Loan ($)	1064	1064	1064	1064	1065
	Increase in Payment (%)	-35.0	-27.0	-18.3	-8.6	2.1
2%	Maximum Loan ($)	1078	1081	1085	1097	1129
	Increase in Payment (%)	-25.3	-16.4	-6.4	4.2	16.3
3%	Maximum Loan ($)	1107	1116	1137	1174	1210
	Increase in Payment (%)	-14.6	-4.7	6.3	18.4	31.9
4%	Maximum Loan ($)	1154	1182	1221	1259	1295
	Increase in Payment (%)	-2.8	8.3	20.6	34.1	49.1
5%	Maximum Loan ($)	1229	1270	1309	1348	1384
	Increase in Payment (%)	10.5	25.5	42.1	51.4	68.1

[1] Interest rate increase at the end of the first five year period

[2] Maximum loan balance during the second five year period per $1,000 of original loan

[3] Percent increase in mortgage payment (over the payment in the tenth year) required to amortize the balance over the remaining 20 years

The development of mortgage-backed pass-through securities over the last decade or so has transformed what were once highly illiquid residential mortgages into very marketable securities, rivaling the traditional government and corporate bonds. Mortgage-backed pass-throughs, however, have never matched bonds when it comes to call protection. Unlike taxable bonds, the underlying mortgages have rarely been issued with an initial period of call protection and the call price has typically been par rather than at some premium over par. In addition, to the extent that a house can be sold for such noneconomic or cost insensitive reasons, as a corporate transfer or an housing upgrading, early redemptions have been much less predictable.

The predominant form of mortgage-backed securities are GNMAs (Government National Mortgage Association) which are backed mostly by FHA-insured and VA-guaranteed mortgages with a current outstanding balance of more than $155 billion. By law, the unpaid principal balance of any FHA/VA mortgages is callable at par any time before maturity. Thus, whenever the prevailing mortgage interest rates drop below the rate on the existing loan, the borrower may refinance the entire unpaid principal balance with a new loan at a lower mortgage rate. Both FHLMC PCs (Participation Certificates guaranteed by the Federal Home Loan Mortgage Corporation and FNMAs (mortgage-backed securities guaranteed by the Federal National Mortgage Association) are backed by conventional mortgages with a combined outstanding balance of more than $80 billion. These agencies prohibit their seller/servicers from enforcing prepayment penalties on mortgage loans in their mortgage pools.

tax purposes, is used for mortgage-backed securities. However, under the grantor trust, the mortgage pool management is passive. That is, the monthly payment along with the prepaid principal from mortgagors "passes-through" directly to mortgage investors in the month the prepayment occurred. No reinvestment discretion by the security issuer is permitted. Consequently, the callability of mortgages creates uncertainty in the pattern of cash flows for investors. More importantly, the callability puts the investor at a disadvantage since refinancing only occurs in a declining interest rate environment. Investors are therefore not only unable to "lock-in" the higher yields for a predetermined period of time; they get back prepaid principal which can only be reinvested at lower yields. (See accompanying box for a brief history and background of mortgage callability).

This paper addresses the issue of installing call protection for investors in mortgage-backed securities. This may be accomplished either at the mortgage level by the lender requiring prepayment penalties for refinancing or at the mortgage pool level by the issuer of mortgage securities actively managing the prepayment proceeds of the mortgage pool. The purpose of an active pool management is to provide "certainty" in cash flows for a predetermined period of time for the security investor.

At the mortgage level, this analysis will focus on prepayment penalties only for refinancings motivated by interest rate movements. Other nonfinancial reasons for prepayment such as moving due to changes in a borrower's employment or marital status are not considered. In fact, there can probably be no reasonable grounds for charging prepayment penalties due to nonfinancial reasons. Alternatively, at the mortgage pool level, the discussion addresses the computation of the "contingent cost" to the issuer in actively managing the mortgage pool. Security

call protection. The discussions which follow will analyze the theoretical value of callability to mortgage borrowers and present strategies as to how call protection may be provided at these two levels.

The Callability and Assumability Features of Mortgages

Callability and assumability are two unique features of most conventional fixed-rate long-term mortgages. By law, FHA-insured and VA-guaranteed mortgages with which GNMA pools are formed are assumable and immediately callable.

Callability gives the borrower (or the mortgagor) the right to prepay the remaining balance of the loan prior to maturity without incurring any financial penalties. Assumability, on the other hand, allows the purchaser of the property, which secures the mortgage loan, to assume the debt servicing obligation of the loan from the original borrower.

The most important financial reason for the borrower to prepay the existing loan or let it be assumed by the purchaser is the movement of mortgage interest rates. After the mortgage loan has been originated, if the prevailing market rate declines, the borrower would be motivated to reduce interest costs by refinancing the existing loan with a new one at a lower mortgage rate This action, however, leaves the mortgage lender with the prepaid proceeds, which can only be reinvested for lower returns. On the other hand, if interest rates rise after the loan origination, the lender is likely to continue holding onto the relatively lower-yielding loan for a longer-than-expected period for two reaons: (1) in a rising mortgage rate environment, resales of existing homes

homes sold, some borrowers simply let purchasers assume the debt servicing of the existing loan.

Prior to the mid-1970s, however, whether there was either a "due-on-sale" clause in the mortgage note to prevent mortgage assumptions or a "prepayment penalty" clause against prepayment was not an important issue for mortgage lenders or investors. The reason was simply that during that period, interest rates had been relatively steady at low levels. The lack of protection against assumability or callability did not constitute a serious interest-rate risk for the lender or the investor.

As interest rates became volatile after the late-1970s, mortgage investors began to feel the need for some protection against assumability and callability. The issue of mortgage assumability, for all practical purposes, has recently been resolved (for conventional loans only).

With certain exceptions in about ten states, mortgage lenders are now allowed to enforce "due-on-sale" clause under the Garn-St. Germain Act of 1982. Callability, however, remains an unresolved issue. Most conventional loans still do not have significant prepayment penalties, and in many states such penalties are prohibited.

Theoretical Value of Callability

The call privilege gives the mortgage borrower the opportunity to save interest costs during the term of housing finance. The size of that saving is dependent on: (1) the level of interest rates on the existing mortgage; (2) the level of interest rates at which the mortgage will be called or refinanced; (3) the specific time when the mortgage is called and (4) the time period after refinancing that the borrower will remain at the residence.

gage interest rate is known to the borrower. The borrower may have an interest rate expectation, but he cannot be sure when and at what interest rate refinancing will indeed occur. Nor is the borrower certain how long he will stay at the residence after refinancing. Consequently, it is almost impossible to predict, at the time of origination, the size of the future interest cost saving due to refinancing. The value of callability, which is directly a function of the interest saving, therefore, cannot be determined in advance, except in a probabilistic sense.

Nevertheless, historical evidence suggests that at the least the potential value of callability can be approximated based on certain assumptions. The following examples illustrate how this can be accomplished by examining the aftertax present value of interest cost savings for two mortgages at different mortgage rates: 15% and 12%. Additionally, assumptions for these examples are as follows:

1. The borrower of the 15% mortgage expects that a 300-basis-point decline in mortgage interest rates will occur either in the next year or in any of the following years. The borrower of the 12% mortgage, on the other hand, expects that the decline in mortgage rates will be only 100 basis points in that fashion.

2. Both borrowers expect the longest possible period of residence at the property to be 10 years. Thus, both expect to change residence and prepay the mortgage at the end of the tenth year. This expectation, in essence, makes the mortgage loan a 10-year balloon with a 30-year amortization schedule.

3. There are no initial fees and charges for obtaining the original mortgage and subsequent refinancings.

4. For simplicity, mortgage payments are made annually and the refinanced mortgage rate is used for the discount rate.

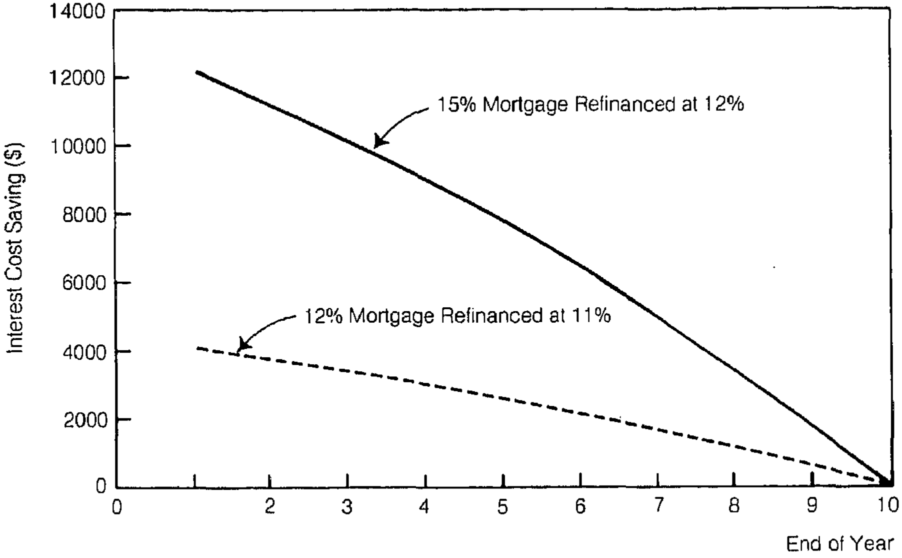
6. The potential interest cost savings in present value is computed by discounting the difference between payments at the existing mortgage rate and at the refinanced rate for the remaining period of residence.

Based on the above assumptions, Figure 1 shows the present value of aftertax interest savings for the two mortgages. Two initial observations can be made. First, the interest cost savings for the 15% mortgage is potentially much greater than that for the 12% mortgage due to the larger expected decline in mortgage rates. Second, given the decline in mortgage rates, the potential savings will be greater the earlier the refinancing takes place. It is interesting to note that at a relatively high mortgage rate and with a significant decline in the prevailing mortgage rates in the early years of the loan, the present value of aftertax interest savings can amount to more than 10% of the original loan amount. Of course, at a relatively lower mortgage rate with a smaller potential decline in rates, the aftertax savings resulting from refinancing many years after the origination will be small.

Installing Call Protection at Mortgage Level

As illustrated in the previous section, callability has a value for the borrower. The higher the level of the mortgage interest rate at origination and the earlier the refinancing takes place, the higher will be the potential value. Explicitly, for most conventional mortgages and all FHA/VA mortgages, the borrower is currently not paying for this value. Implicitly, however, the borrower may have indeed been pay-

Present Value of Aftertax Interest Cost Savings from Refinancings



Assumptions:
Loan Amount, $100,000;
Amortization Schedule, 30-Year Maturity Prepaid at the 10th Year,
Marginal Tax Rate = 35%
Aftertax Discount Rate = Refinance Rate x (1.-0.35)
For a 15% mortgage refinanced at 12%, the discount rate = 7.80%
For a 12% mortgage refinanced at 11%, the discount rate = 7.15%

ing a price for the call privilege, especially in recent years. The price is paid in advance at the mortgage origination in the form of origination fees and a slightly higher mortgage rate.

One clear example of the borrower implicitly paying for the call privilege has been the increase in the amount of origination fees in the past few years. Prior to the escalation of mortgage interest rates in the late 1970s, origination fees for the average conventional mortgage amounted to just about one point (one percent of the mortgage loan amount). In the past year, however, origination fees have been as high as four points. Moreover, had there been some form of call protection for GNMA securities, the been somewhat smaller. In fact, the lack of call protection probably can explain the bulk of the yield spreads of current coupon GNMAs over ten-year Treasuries and over AAA intermediate term industrials. Both GNMAs and Treasuries are backed by the full faith and credit of the U.S. Government; however, in the past three years, GNMA current coupon yields (mortgage yield, calculated on a monthly-pay basis) have averaged in excess of 140 basis points above the ten-year Treasuries. This point is further illustrated by yield differentials of GNMAs over high quality industrials, most of which are call protected for early years. The mortgage securities still yielded in an average of 100 basis points over industrials over the

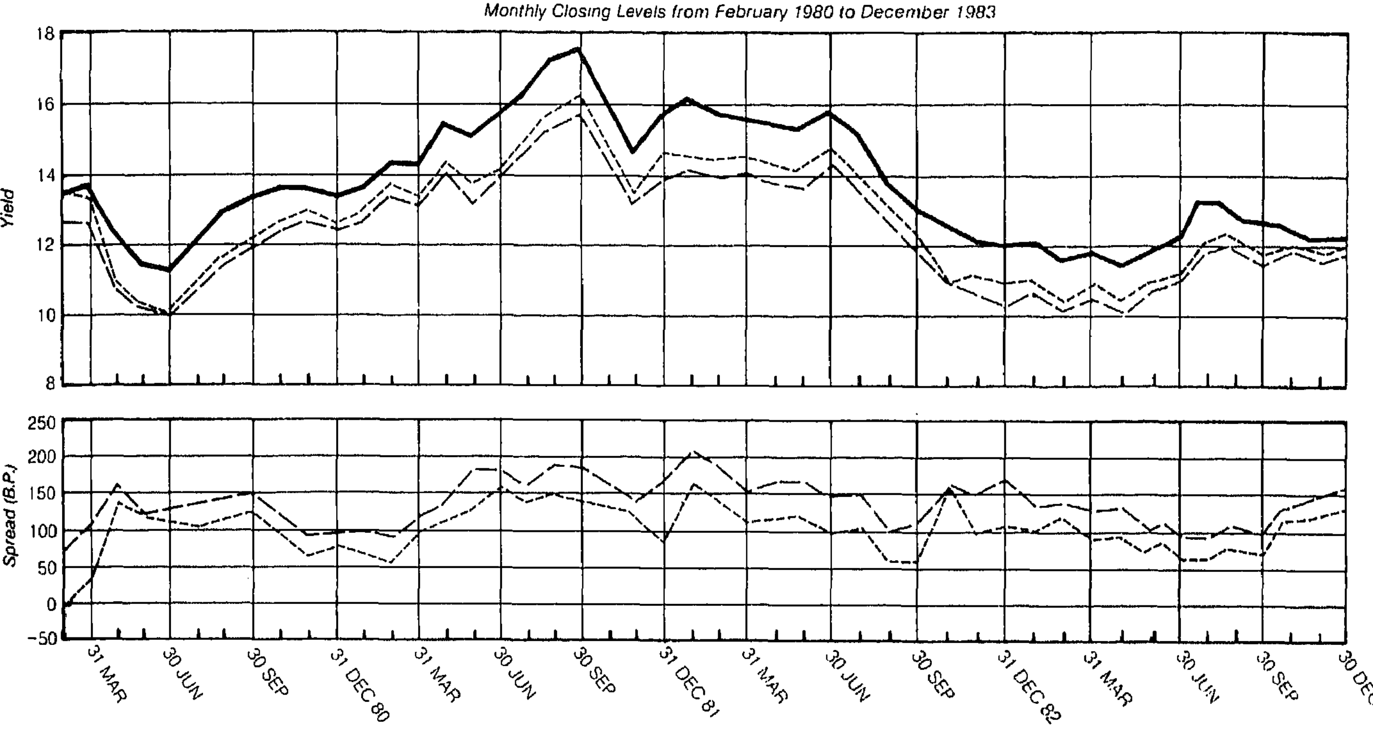
the lack of call protection. However, this type of pricing mechanism seems unfair to certain mortgage borrowers who, for various reasons, would probably not refinance even when interest rates decline. (For instance, the borrower who expects to move in the near future may decide not to refinance at the lower prevailing mortgage rate because of the high origination fees and the necessary procedures involved.) These borrowers have paid a premium for a privilege they will not exercise. This premium, therefore, may constitute a subsidy for those who would take advantage of a period of lower rates and refinance. There are also, of course, a certain number of prepayments due to nonfinancial reasons, which would occur regardless of the movement of mortgage rates. Investors may even reap some additional profit when prepayment occurs for these nonfinancial reasons in the midst of rising interest rates.

In order to provide investors with some form of call protection and at the same time be fair to all mortgage borrowers, there should be a price mechanism which will charge only those who refinance for the purpose of saving interest costs. Two methods may be suggested: (1) installing prepayment penalties by requiring that the prepayment be paid "at premium" in the first few years; and (2) charging a certain amount of interest cost in proportion to the interest rate on the existing mortgage.

a. Prepayment "At Premium"

The call provision of corporate bonds usually has a downward sliding scale of premium call prices during the callable period. Mortgages certainly can borrow this concept by requiring that prepayment be made at premium prices in the first several years of the mortgage. This is consistent with the conclusion of the previous section that the value of a call declines as the existing mortgage becomes more seasoned. For example, as shown in Figure 3, during the first year,

Historical Levels and Spreads for Selected Issues

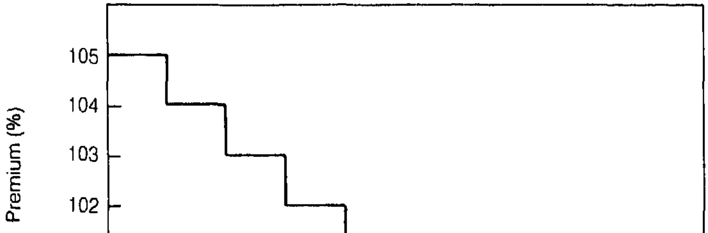


SPREADS TO BENCHMARK ISSUE:

		HIGH	LOW	AVG	LATEST
BENCHMARK ━━━	GNMASF CURRENT COUPON				
------	AAA INDUSTRIAL MED NEW	+5.50	166.40	100.40	-36.50
— — —	10 YEAR TREASURY NOTE	-73.50	-209.20	141.21	-73.50

Figure 3.

A Hypothetical Schedule of Premiums of the Unpaid Principal Balance as Prepayment Penalties



by the fifth year, the prepayment will be 101% of the unpaid principal balance. This mechanism would provide a greater degree of call protection for investors at least in the first five years.

Since, as mentioned earlier, the value o the call cannot be determined at origination, these premiums can only be set initially in an arbitrary fashion. The marketplace will eventually price this premiun as it gradually accumulates experience in setting the appropriate price. Furthermore

One potential problem with this pricing method for prepayment penalty is its rigidity. The potential interest cost savings are a function of the level of the interest rate on the existing mortgage. Therefore, the prepayment penalty of, for instance, 5% over par during the first year, would be more severe for a 12% mortgage than for a 15% mortgage. Unless a schedule of premiums is provided for each level of mortgage rates, which would be cumbersome, the prepayment "at premium" would not be flexible, since it does not recognize the difference in the level of mortgage rates on the existing loans.

b. Charging Interest Costs for Prepayment

To correct for the rigidity of prepayment at premium prices, another form of penalty would be simply to charge a certain amount of interest on a sliding scale during the initial years. For example, the penalty for prepaying during the first year may amount to five months of interest on the mortgage loan. At the fifth year, the penalty will be reduced to one month of interest. At higher interest rates, the potential savings will be greater and since the penalty is based on the level of interest rates, it will also be relatively more severe. Conversely, on a lower interest rate mortgage, the potential savings are relatively small and, accordingly, the penalty will also be light (see Figure 4). Again, the penalty schedule is set arbitrarily at the initial stage and eventually it would be structured appropriately by the marketplace.

Interest-Cost Penalties

	15% Mortgage Rate		12% Mortgage Rate	
Prepayment During Year	Months of Interest	Amount	Months of Interest	Amount
1	5	$6,236	5	$4,978
2	4	4,978	4	3,966
3	3	3,724	3	2,962
4	2	2,475	2	1,964
5	1	1,238	1	982

Assumptions:
1. Mortgage Loan Amount: $100,000
2. Term of Maturity: 30 years
3. Prepayment penalties are for the first five years.
4. Origination fees: None

Installing Call Protection at the Mortgage Pool Level

The basic idea behind installing call protection at the mortgage pool level is to allow the issuer of mortgage securities to actively manage the prepayment proceeds and to guarantee the investor the coupon yield for a fixed period of time

same yield as the coupon rate of the mortgage security. It is obvious that the issuer will incur a "contingent cost" since reinvestment of the prepayment proceeds *are most likely to yield less than the coupon rate.*

A numerical example is provided in Figure 5 to illustrate how the issuer actively manages the prepayment proceeds and the computation of the contingent cost. The following assumptions are made for this computation.

1. Five years of call protection is provided.

2. The mortgage pass-through's coupon rate is 12.5%, and there is no servicing fee. Therefore, the mortgage note rate equals the security coupon rate.

3. Prepayments are reinvested in self-issued (the issuer being a savings and loan association or a commercial bank) certificates of deposit (CDs) carrying a coupon rate of 12½%.

4. The discount rate is 12%, compounded monthly.

5. The *prepayment rate* is 10%. In other

Assuming that the market yield on CDs has dropped to 9% and the 12.5% coupon CDs are selling at a premium, this premium is not covered by the prepaid principal and, consequently, *must be paid by* the issuer. At a 10% prepayment rate and a 12% discount rate the present value of these premium payments, or the total net cost, is $2,922 (see Figure 5). In order to compensate for the issuer's contingent costs, the price of the security in question would have to be raised and the issuer would have to require the investor to give up approximately 47 basis points in yield for the original 12.5% pass-through security (see Figure 6).

Some additional contingent-cost computations under various interest rate and prepayment scenarios are provided in Figure 6. Under these scenarios, the level of reinvestment yield is inversely related to the prepayment rate. It stands to reason that for a more significant decline in *interest rates (indicated by a lower level of* reinvestment rates), refinancings will be active and the prepayment rate will rise. The issuer's contingent costs, therefore, rise as the prepayment rate increases. Consequently, investors in higher coupon

Figure 5.

A Computation of Contingent Costs for a Mortgage Security Issuer

			Reinvest in CDs		
Year	Prepayment Rate	Prepaid Principal	Reinvestment Yield	Avg. Price	Net Cost
1	10%	$9,983	9.00	113.30	$1,327
2	10	8,953	9.00	110.94	979
3	10	8,026	9.00	108.37	672
4	10	7,191	9.00	105.56	400
5	10	6,438	9.00	102.50	160

Present Value of total net cost (discount rate 12%): $2,922 $3,540

Assumptions:
1. Original face value of security: $100,000
2. Net Coupon: 12.5%
3. Servicing Fee: None
4. Delivery Delay: None
5. Maturity: 30 years
6. Guaranteed Rate: 12.5%

Note: The net cost is computed by multiplying the premium portion of the security price by the prepayment proceeds. For example, for year 1, the net cost equals $9,983 x (1.33-1.000) = $1,327

The maturity of CDs decreases each year, so that in the fifth year, the issuer need only to purchase CDs with one-year maturity for the purpose of providing call protection.

Figure. 6.

Contingent Costs Under Various Scenarios

			Reinvest in CDs		
Scenario	Prepayment Rate	Reinvestment Rate	Total Net Cost	Total Net Cost in Present Value	Yield Give-Up By Investors
1	50%	7%	$17,892	$15,897	2.35%
2	10	9	3,540	2,922	0.47
3	6	11	924	756	0.12
4	3	13	-154	-125	-0.02
5	1	15	-256	-207	-0.04

Conclusions.

This paper has addressed two alternatives for installing call protection for investors in mortgage-backed securities. The protection can be installed through charging prepayments at the mortgage level or through the active management of mortgage pools. Hitherto, lenders have relied on high mortgage rates and large origination fees and charges to deter refinancing. This pricing mechanism discriminates against those who do not refinance frequently and tends to raise the cost of home financing. Both strategies discussed in this analysis will make mortgage securities more attractive and, therefore, lower either directly or indirectly the level of mortgage interest rates in relation to other long-term rates. At the present time of strong demographic demand for ownership housing, the eventual implementation of mortgage call protection could help improve housing affordability for prospective home buyers.

proposal, Senator Tower established two goals: to encourage the private sector to compete directly with FNMA and FHLMC, and to encourage the growth of the secondary mortgage market by removing any remaining regulatory and tax impediments which prevent mortgage pass-through securities from trading as well as corporate securities.

Senator Tower's remarks are in accord with the Report of the President's Commission on Housing (April, 1982) which concluded that ultimately, Fannie Mae and Freddie Mac should shed their agency benefits. In addition, statements in the President's 1983 and 1984 Budgets to the Congress indicate the Administration's intentions of moving these agencies toward privatization.

S. 1821 and S. 1822 do not make any significant direct steps towards the privatization of Freddie Mac and Fannie Mae. Instead, the bills' major thrust is to encourage trading and investing in mortgage-related securities through the "TIMs" amendments to securities laws and through changes to the tax code to solve the problems of "grantor trusts" used for mortgage-backed securities issuance. The changes made to Freddie Mac's chapter by Title II of S. 1821 are relatively limited, and new authority (junior liens and mobile home loans) essentially allows FHLMC to pioneer in areas where there is no significant private secondary market interest or participation at present.

Summary of S. 1821 and S. 1822

Title 1 of S. 1821 contains a number of securities amendments to remove technical impediments to trading and investment in mortgage-related securities. Many when the securities laws and financial institutions' investment statutes were enacted. Similarly, State restrictions concerning legal investment for various state-chartered or regulated institutions, pension funds, and trust managers have not generally considered mortgage-related securities at the time of enactment.

Title II provides for changes to FNMA and FHLMC Charters. It modifies FHLMC and FNMA chapters regarding the authority to issue preferred stock and requires any issuance to comply with New York stock exchange rules and procedures regarding the rights of preferred stockholders. This title would also allow Freddie Mac to purchase manufactured home loans even where the manufactured home may be considered personal or mixed property, rather than strictly real property.

In addition, the bill allows Freddie Mac to deal in junior lien mortgages on the same basis as FNMA. Under current law, Freddie Mac is limited to purchase of second mortgages for energy or home-improvement purposes.

S. 1821 also expands the definition of a conventional mortgage so that it will include mortgages insured by a State agency. These mortgages would for the first time be eligible for inclusion in Freddie Mac conventional mortgage purchase programs.

However, the bill does provide that Freddie Mac may not guarantee mortgage-backed securities issued by another entity. This preserves the status quo so that Freddie Mac may only guarantee, and implicitly extend the financial backing of the Federal Home Bank System, to its own securities.

The amendments in Title I of S. 1821 will allow flexibility in mortgage security transactions and expand the potential base for investors, thus substantially enhancing the ability of private issuers of mortgage credit for homebuyers.

Among other effects, Title II would expand and promote the development of a mature secondary market by allowing Freddie Mac to act as an interest rate conduit for a broader range of mortgage loans, and enable lenders to replenish their supply funds for new originations. At present, however, this change would affect only three states and Puerto Rico. Thus, there would be no apparent negative effect on activity in this area by the private sector.

It would also expand the availability of various mortgage financing tools such as purchase money mortgages. With the new authority, Freddie Mac will be able to expand mortgage financing options for homebuyers. This avoids potential future problems since without sufficient sales outlets in the secondary market, lenders will either reduce their second mortgage originations or hold these loans in portfolio, which they are less willing to do than in the past. An expanded secondary market for these loans will allow lenders to pass along their interest rate risk and replenish their supply of funds for new originations.

Since most manufactured housing is considered personal property under State law, the current restriction on Freddie Mac limits its participation to an extremely small segment of the market. By removing this obstacle to the development of secondary market for such loans, an increased supply of credit will be available for such home purchases.

The tax code changes in S. 1822 (TIMs) are designed to solve the problems of grantor trusts used in issuing mortgage-backed securities. Grantor trusts cannot be actively managed and still retain their tax-exempt status under general tax law.

This makes it difficult to substitute loans, manage cash flows and reinvest paid-off principal before maturity of the longest-term securities. S. 1822 creates a new type of "flow through" entity for mortgage securities, the Trust for Investment in Mortgages, allowing for call protection and multiple classes of securities. FHLMC and FNMA would be barred from TIMs participation.

The advantages of TIMs would be: they provide a mechanism for structuring mortgage pools to appeal to investors (including thrifts) with differing maturity needs; they could be designed to carry yields roughly comparable to the collateralized mortgage obligations recently issued by Freddie Mac; they can attract new investors to mortgage-backed securities.

S. 1822 defines a TIM as a corporation, trust or association which is managed by one or more trustees or directors, where beneficial ownership is evidenced by registered transferrable shares or certificates of beneficial interest, and which would otherwise be taxable as a domestic corporation which is not a financial institution or insurance company. A TIM also must meet tests set out in the legislation including:

1. At least 95 percent of gross income (excluding gross income from prohibited transactions) must come from qualified obligations, cash, cash items and Government securities.

2. At least 75 percent of gross income (excluding gross income from prohibited transactions) must come from qualified obligations.

3. At least 85 percent of total assets at the close of each taxable year must consist of qualified obligations, cash, cash items and Government securities.

4. Not more than 20 percent of gross income may come from disposition of stocks or securities held for less than one year and property involved in prohibited transactions.

An exception to the fourth test is made for qualified short term investments, which are investments designated as such by the TIM, held for less than 180 days, or if longer than 180 days, until maturity, and the proceeds of which are used to acquire other qualified obligations or are distributed to the TIM's shareholders.

A TIM may not have income from the active conduct of a trade or business. Income from commitment fees and points received in connection with a qualified obligation are not treated as income from a trade or business. FNMA and FHLMC are not eligible trustees, directors, or shareholders of a TIM under the bill.

Qualified obligations include qualified first or second mortgages, qualified participations, cash-flow mortgage-backed bonds backed by qualified trust or second mortgages equity interests in TIMs, qualified repurchase obligations or qualified income investments. Qualified mortgages are for single family residences and improvements on such residences. Construction loans are specifically excluded.

Qualified participations are participations in mortgages or pools of mortgages which would be qualified to be held by a TIM, and for which the mortgagees remain the primary obligators. The legislation also defines qualified repurchase agreements and qualified income investments. The definition of qualified income investment allows a TIM to invest funds in securities, letters of credit, CD's or similar instruments during the 18 months after its incorporation. The TIM may do this to generate cash to meet fixed obligations or to replace income lost by prepayment or liquidation.

Section 860 B(a) of S. 1822 states that a TIM is exempt from taxation. The bill also describes how TIM shareholders are to be treated for tax purposes, i.e., as if the TIM were a partnership and the shareholder a partner. In addition, the bill sets out how distributions from the disposition of qualified obligations are to be treated:

a) If the proceeds are distributed to a shareholder, it shall be treated as a redemption of his shares, but the gain from the redemption shall have the same character as it would have if the TIM were taxable.

b) If the proceeds are used to acquire another qualified obligation, then each shareholder will be treated as having received and recontributed his pro rata share of the proceeds, receiving shares having a par value equal to the face amount of the other qualified obligations.

purpose of the sessions was to generate an open dialogue; to exchange information on what can be done to increase the level of investment in housing; and to find out what is inhibiting greater mortgage related investment.

Samuel R. Pierce, Jr., Secretary of the U.S. Department of Housing and Urban Development, addressing the opening session, said:

- pension funds could be tapped as a supplier of funds for mortgage and mortgage-backed securities;
- pension funds may well be the single most important source of funds in the near future;
- mortgages are as safe, profitable and liquid as any investments pension funds are presently making;
- with some adjustments to Government regulations, there can be a higher level of mortgage investment that meets pension funds' strict criteria for investment;
- the Administration is prepared to take all prudent steps available to make mortgage related investments attractive to pension funds.

Raymond J. Donovan, Secretary of the Department of Labor, described his Department's approach to the pension fund regulations and specific issues regarding investment in housing, saying:

- his philosophy for the administration of ERISA is to give pension fund managers the greatest possible flexibility, the highest degree of certainty, and the least possible burden of regulation without jeopardizing the integrity of the pension funds;
- the Department of Labor has proposed a class exemption for residential mortgage finance arrangements, which

gages, as plan assets.

Secretaries Pierce and Donovan led an open discussion. Panelists joining the Secretaries included: Philip R. Brinkerhoff, President, Federal Home Loan Mortgage Corporation (FHLMC); Robert W. Karpe, President, Government National Mortgage Association (GNMA); and David O. Maxwell, Chairman and Chief Executive Officer, Federal National Mortgage Association (FNMA).

Responses to Secretary Pierce's question, "Under what conditions would you expect the level of investment by pension funds in residential mortgages to increase?" cited:

- conditions of lower inflation expectations;
- removal of assumability of federally backed mortgages with enforcement of due-on-sale;
- under Financial Accounting Standards Board regulation No. 34, pension funds are required to regularly mark mortgages to their market value, thereby putting a strain on managers in trying to evaluate their mortgages each year at the market.

Concern was expressed over how to keep the pension funds from getting into the same financial situation as the savings and loan associations with holdings of long-term low interest fixed-rate loans. Panelists commented about the different types of instruments that exist today compared to those available when the S&L's began.

Mr. Philip Brinkerhoff, FHLMC, mentioned the choice of adjustable mortgages in the conventional market, where the bulk of mortgages are made, and securities of FHLMC and FNMA backed by instrumentalities of the Federal Government.

Secretary Donovan indicated there was no problem with variable rate mortgage investments under ERISA. Mr. David

- backed by the Federal Government;
- very liquid, since it is traded daily;
- carries a good return, and;
- has call protection. GNMA securities bought at deep discounts will be worth more when interest rates decline.

Mr. Maxwell asked the participants what attributes conventional backed mortgages should have to attract pension funds. The response was:

- that the FNMA issues backed by seasoned, low-rate mortgages were attractive because of protection afforded by the discount, the "extra kicker" provided by the pass-through of mortgage prepayments, protection against call, and the "minimal time horizon" provided by relatively early mortgage maturities;
- an emphasis on the importance of a continuous flow of offerings "on an ongoing basis" to establish and maintain marketability, with the suggestion that careful study be made of the "true average life on these eight and a half percent mortgages as opposed to the standard twelve year average life that's more or less the accepted industry standard."

Dr. Arnold Diamond, HUD, Director of the Office of Financial Management, presented a paper dispelling the common belief that private non-insured pension funds have provided a negligible amount of funds for housing despite the rapid increase in their assets. Data indicates:

- that pension funds are allocating an increasing proportion of their growing resources into housing mortgage related investments;

funds or life insurance companies, the growth rate of the ratio is impressive (the ratio of mortgage related investments rose from 2.9 percent in 1975 to 7.3 percent in 1981;)

- to show a realistic assessment of the role of pension funds as a source of financing for residential mortgages, the very sizeable investment in securities used to finance mortgages needs to be taken into account;

- a real need for good statistics on direct and indirect activity for pension funds.

Philip D. Winn, HUD Assistant Secretary for Housing-Federal Housing Commissioner, discussed some of the new directions proposed for FHA and HUD programs including legislative proposals on:

- intention to go into areas not served by the private mortgage insurers, particularly the first-time homebuyers and the needy;

- expansion of the Section 245(b) graduated payment mortgages to cover resale housing and condominiums;

- variable rate mortgages for 10 percent of FHA mortgages;

- shared appreciation mortgages;

- elimination of the secretarial administered FHA ceiling for a free floating interest rate.

Claude Pope, President of the American Mortgage Insurance Company, mentioned the industry's notable contributions as assemblers of mortgage pools, as well as providing primary insurance along with a degree of pool insurance. He said they are also serving the market for adjustable rate mortgages and conventional mortgage-backed securities.

One pension fund manager commented that he thought Dr. Diamond's fig-

and was not sure how much more could come from pension funds. He indicated that, as changes are made as more creative products are brought out, there could be growth.

Another manager commented that it all hinges on the economy and there really is not much more that needs to be done in terms of liquidity in GNMA's and the type of security being offered. The instruments are pretty well there, but it is a matter of environment. In particular, with project mortgages, there is a problem in the early years if a default occurs, since you are left with low coupon paper.

One question focused on whether call protection is protecting the yield or the variability in yield. One replier thought that generally, if interest rates are going down you want call protection, and if rates are going up you want variability. Another responded that when interest rates are rising, prepayments fall off sharply. "When interest rates are falling, you're going to have a rapid rise in prepayments, in which case the yield is going to go way above the yield that otherwise prevails. Decisions must be made not only on the volatility but on the level of interest rates that bear upon the prepayment, and the ultimate yield you as an investor could earn."

Still another participant commented that what really is required for pension funds to buy the mortgage-backed security is to get a market return in terms of yield, liquidity, security compared to alternative investment opportunities, saying: "Once that is available, once housing is providing a market rate of return, the money will flow so fast you won't be able to hold onto it."

February 26

Warren Lasko, Vice President, Government National Mortgage Association (GNMA), presented an overview of several different types of mortgage-backed securities (MBS). He pointed out that when buying a GNMA MBS, you are buy-

only the guarantee.

Dexter E. Senft, Vice President, Fixed Income, First Boston Corporation, discussed cash flow considerations. The bulk of single family 30 year loans are assumed to be prepaid in twelve years. However, high interest rates have caused prepayments to slow down in recent years. It is necessary to look at prepayment patterns over time, not just overall prepayment rates. An index from zero to one hundred tells prepayment consistency over time: low consistency is closer to zero; GNMA's are up in the sixty to ninety percent range.

Dr. Martin Leibowitz, Managing Director of Bond Portfolio Analysis, Salomon Brothers, addressed yield and spread considerations by comparing long term Treasury securities and mortgage pass-through securities. On a total return basis, mortgage pools have performed as well, sometimes better than, Treasuries. During adverse times, the mortgage-backed securities perform considerably better. At high levels of interest rates, the spreads widen considerably in favor of the mortgage backed securities.

Michael C. Rush, Executive Vice President and Chief Financial Officer, FHLMC; Donald J. Klink, Vice President for Mortgage Securities and Negotiated Transactions, FNMA; and Mark L. Korell, Executive Vice President, MGIC Mortgage Marketing Corporation, participated in a discussion focused on various types of mortgage instruments. Only a few pension funds expressed interest in alternatives to fixed rate mortgage backed securities.

W. Steven Sheppard, President of Paine Webber Real Estate Securities Inc., spoke about the quality and risks associated with pass-through securities. The mortgage-backed security has collateral behind it as well as a guarantee, some kind of insurance, or letter of credit. The conventional mortgage-backed security has to be looked at individually. When rating the conventional MBS, Standard and Poors now considers the

Brian Hays, Managing Director of A.G. Becker and Company addressed the issue of liquidity. He indicated:

- Wall Street is becoming much more active in providing liquidity in the mortgage-backed securities market;

- standardization is the key in dealing with the vast array of new products; and

- a liquid market requires the volume outstanding and the continuous flow of new product. Without consistency to create standardized types, the alternative instruments are presently extremely illiquid.

Jeffrey N. Clayton, Administrator, Pension and Welfare Benefit Program, Department of Labor, discussed directions on ERISA regulations. The Department's position on the prudence role is that it is procedural in nature, describing how fiduciaries shall act and what to consider in making decisions. He said there should be maximum flexibility in selecting investments that are appropriate to a particular plan. Investments in housing should be designed to further the plan's objectives. Pension funds, however, are to be invested for the sole purpose of provid*ing retirement income to workers and their* families. The Labor Department will not allow plans to accept lower returns or incur greater risks in making social investments.

The Department of Labor is currently working on:

- regulations addressing plan assets;
- regulatory relief from the prohibited transactions, which will be done through the class exemption process;
- review of the mortgage pool exemption, to include forward commitments;
- the proposed class exemption for residential mortgages. Many of the 1979 comments received suggest that on the *residential class exemption*, the scope of the proposal should be broadened to reflect a wide range of practices and institutional arrangements that exist in the

since they are not standardized. He said they would be included in the class exemption only when they are accepted by a substantial portion of the secondary market. Further, ERISA is concerned over any possibility of abuse in any type of investment. Second liens have received different treatment because of the lack of experience with that vehicle. Mr. Clayton indicated that his agency needs additional information on second liens and that based on such information there may be no reason to treat them differently than first mortgages.

On concern expressed about an earlier statement on the lack of interest in ARMs, VRMs, etc., by the pension funds, Mr. Leibowitz replied that they are "lovely instruments with a lot of appeal as long as you are not borrowing on the basis of them." Another panelist indicated that some variable instruments, such as paper guaranteed by the Small Business Administration and Farmers Home Administration, have been accepted for years. The problem is finding a standard instrument. Some pension funds have found that it takes a lot of staff time to monitor and service VRMs, thus a 3 to 5 year instru*ment would be more convenient.*

The final session focused on direct mortgage investments. Mark K. Posnick, Vice Chairman of the Board and Chief Operating Officer, Margaretten and Company, Inc., discussed direct placement of single family whole mortgages. He said there are packaging costs such as legal fees associated with securities, but with direct mortgage placements the mortgage originator and seller can pass along some of the benefit of the reduction in cost to the investor by an increase in yields. Thus, by investing directly in mortgages, one is able to concentrate investments into certain higher yielding instruments by themselves. Additionally, with direct investments in mortgages, pension funds can tailor investments to their needs; e.g., cash flow considerations, and

obtain safety, liquidity, and real yield. There are unlimited opportunities since they can be bought in loan form, certificate form, mortgage-backed security form, or as an original mortgage through the GNMA auction, HUD auction, and the secondary market. There is call protection and an appreciation kicker. "There is an incredible array where all the social benefits and inflation protection is 'free' on top of a 150 basis point spread over Treasury bonds at a minimum."

Walter P. Blass, Senior Vice President, Advance Mortgage Corporation, presented a product developed by Oppenheimer, the parent company, for a shared appreciation mortgage (SAM), geared to the first time home buyer. The goal of the SAM was to get a real rate of return predicated on continued inflation and providing the borrower with a below market mortgage rate. The lender, in essence, would receive a third of the gross appreciation.

Robert Tobin, Vice President, Merrill Lynch White Weld Capital Markets Group, Mortgage-Backed Securities, reviewed the development of their accelerated payment mortgages, called growing equity mortgages (GEM). The concept is to *apply the mortgage payments to principal,* not interest, and thereby to shorten the real life of the mortgage considerably. An index based on disposable income (after taxes) was developed as the escalating mortgage payment vehicle. GEM gives the investor the accelerated cash flow he requires and at the same time eliminates some of the problems in terms of home values.

Richard L. Mower, President and Chief Executive Officer, Transamerica Mortgage Company, discussed second mortgages. He felt that in the current interest rate climate second mortgages are superior in quality and safety compared to first mortgages originated today, since people taking out second mortgages are primarily those who have lived in their houses and have a need for cash. The volume poten-

The second conference on pension fund investments sponsored by the U.S. Department of Housing and Urban Development was opened by Dr. June Koch, HUD Deputy Under Secretary for Intergovernmental Relations. Dr. Koch explained to the 36 pension fund managers that the main purposes of the conference were to exchange information; learn what needs to be done to increase the level of pension fund investment in housing mortgage related instruments; and identify what is inhibiting investment in housing finance. In addition, the sessions would present information that many of the existing mortgage instruments are market competitive with alternative investment opportunities and mortgage related investments are particularly suited to the needs of pension funds.

Samuel R. Pierce, Jr., Secretary of the U.S. Department of Housing and Urban Development, addressing the session, said:

- pension funds may be the single most important source for mortgage related instruments in the near future;

- the February conference showed that mortgages and mortgage-backed securities (MBS) can be attractive to pension fund managers when they take into account comparative yields, cash flow, safety and liquidity of these types of investments, as compared to alternative investment opportunities;

- housing mortgages and mortgage-backed securities provide good investment opportunities especially at a time when the administration is succeeding in containing inflation;

- HUD anticipates introducing new products to the GNMA mortgage-backed securities program tailored to the needs of pension funds including 1) an increased proportion of graduated payment loans, including buydown provisions, 2) shared equity mortgages in GNMA pools, 3) adjustable rate mortgages, 4) technical changes - investors getting a single check each month and central paying agent, and 5) jumbo pool arrangements;

- HUD is looking at the establishment of a more formal working group composed of pension fund managers, and representatives from the Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC), Government National Mortgage Association (GNMA) and private mortgage insurers;

- mortgages and mortgage related instruments can be safe, sound and very useful investments for pension funds, and we hope to make them even more attractive than they are now.

Donald Dotson, Assistant Secretary of Labor for Management Relations, representing Secretary Donovan of the Department of Labor, discussed the Department's approach to pension fund regulations, and some specific issues regarding investments in housing. He indicated that:

- the Department's basic philosophy in administering ERISA is to provide pension fund managers with the greatest possible flexibility, the highest degree of certainty and the least burden of regulation possible without jeopardizing the integrity of pension funds;

- the overriding objective of pension funds is to provide retirement income. As such, ERISA does not permit plans to accept lower returns or incur greater risks in making so-called social investments, no matter how well intentioned;

- the Department plans to use class exemptions to give plans the freedom to engage in routine business that poses no

- the Department wants to make residential mortgages attractive, and profitable investments for pension plans and will do everything within the bounds of law to help accomplish that end.

Jeffrey N. Clayton, Administrator, Pension and Welfare Program, Department of Labor, detailed the changes in ERISA regulations. The Department views Section 404 of ERISA, the Prudence Rule as being procedural; that is, it outlines the types of things that investment managers should consider in deciding whether or not to make an investment. The Prudence Rule allows the maximum flexibility in deciding types of investments providing that the pension manager acts as a prudent man would - solely in the interest of providing benefits to plan participants and beneficiaries. The Department's position is clear that it will not allow plans to sacrifice a certain amount of investment yield or incur greater risks if the investments were to further some desired social objective. Further, he indicated there was no question in his mind that there are prudent investments in the real estate and the residential mortgage area attainable without sacrificing yields and without introducing social considerations which are contrary to the law. The Department of Labor has taken the following steps in the residential mortgage area:

- granted a class exemption which permits plans to engage in a broad range of investments in residential mortgage loans;

- amended the class exemption which deals with mortgage pools (exemption 81-7), to allow plans to invest in mortgage pools where the sponsor, trustee, or issuer of the pools or parties are related to the plan, if certain conditions are met;

- proposed an amendment to expand relief to a pool of loans that are secured by second mortgages and to allow for-specific date.

- issued plan asset regulations making clear that for Government-backed or guaranteed, or quasi government-backed or guaranteed mortgage securities, the security itself is the plan asset, not the underlying mortgage.

Alan Lebowitz, head of the Office of Fiduciary Standards, Department of Labor, was introduced to answer technical questions.

Stuart M. Lewis, a partner in Silverstein and Mullens, focused on why a pension fund should consider investment in residential mortgages and how it should invest in those types of instruments. He indicated such an investment is a question of economics. The answer to *why* to invest is because the investment is suitable for pension and profit-sharing plans, and because the investment produces a very high stable yield for the benefit of plan participants. Mortgage instruments are particularly suitable forms of investments for pension plans because of the following features: 1) high security and stability; 2) long-term investment, 3) high cash flow, 4) liquidity, and 5) high yield.

With respect to *how* to invest in mortgages, Mr. Lewis stated that pension funds can, either directly or indirectly, make such investments based on the most economically sound alternative. He noted the following types of available mortgage related investments: mortgage pools, mortgage-backed certificates, direct ownership of mortgage loans, participation interest and other types of pooling. Because of regulatory changes in the ERISA prohibitive transactions, the fear of violations in certain mortgage investments has been lifted. As for the prudence requirement, mortgages are highly secure and carry a reasonable interest rate.

with a pension fund was precluded from engaging in additional transactions. The response was that although he is a party in interest, the mortgage banker is not subject to the restrictions of ERISA provision 406 (allowing the class exemption from prohibitive transactions).

Another question related to a fund's achieving diversification of investments in real estate. There was no definitive answer, but most of the panelists thought that the whole portfolio would need to be examined. One panelist thought if the underlying risk was spread geographically, e.g. real estate dispersed nationwide, a plan could be 100 percent invested in mortgages. Jeffrey Clayton indicated that investment in only one real estate project in a given community would probably be scrutinized. In the case of mortgage-backed securities, as compared to home mortgages, however, there is no risk and there is liquidity, so the diversification question may not have the same applicability. The Department of Labor is trying to create a regulatory environment where pension funds can feel free to go after the best investments.

June 3

Warren Lasko, Executive Vice President, Government National Mortgage Association, presented an overview of mortgage-backed securities. He pointed out that in buying mortgage-backed securities, a pension plan is not buying mortgages directly as whole loans. Instead, it is buying a cash flow including full recovery of principal, with a view toward yield and minimization of risk. There is no need to look at the underlying mortgage, but instead at the guarantee or insurance behind it. In comparing the various mortgage instruments, there has been an evolution toward greater standardization. Mortgage securities usually

and 2.) payment of interest monthly on the unpaid principal balance with a full collection of principal. Some of the variation among securities include: different payment dates, receiving dates, and type of mortgage loans, e.g. backed by FHA-VA or conventional. Finally, there is an increase in specialization aimed at trying to make these instruments more attractive to investors and to provide credit for housing.

Ronald J. Ryan, Director of Financial Strategy, Lehman Brothers Kuhn Loeb, Inc., spoke on cash flow considerations of mortgage-backed securities. In regard to pass-throughs, more than 90 percent of the loans are paid off before maturity. Therefore, true yield is better defined as yield to average life (duration), rather than yield to maturity. Whatever shortens the life, or duration of a pass-through that trades at a discount, adds yield. There are many types of pass-throughs now available with varying cash flow and maturity consideration for investors.

Michael Waldman, Vice President, Salomon Brothers, discussed "comparative yields," indicating that mortgages have higher yields than like quality investments (e.g., high grade corporate bonds and long-term treasuries). Prepayments are a crucial aspect in determining the cash flow and, therefore, determining the yield.

The speakers were joined by Mark Korell, President, MGIC Mortgage Marketing Corporation; Robert W. Karpe, President, GNMA; James E. Murray, President, Federal National Mortgage Association; and Michael Rush, Vice President, Federa Home Loan Mortgage Corporation.

Mark Korell commented that institutional investors are generally looking fo shorter term investments, while consumers are looking for more affordabl mortgages which underly the securitie

Both of these trends have given rise to new innovations in mortgage instruments.

In response to a question about what is meant by "tailoring to pension funds needs," Warren Lasko responded that there is a perception that investors do not want 30-year maturities. So, we are trying to find instruments that can satisfy consumers and at the same time entice money into the housing market from investors. These would include shortening maturities, quickening the prepayment of principal, and creating variable rate opportunities.

One pension fund manager indicated that a major flaw in the single family mortgage as an investment is a lack of call protection for a lender, while the mortgage borrower has a call option on a security. If rates go up, the security will go down in price, while if rates go down, the mortgage and the security will be paid off. Before a pension fund manager will invest in any current coupon mortgage, he/she wants a much higher yield to compensate for this option risk. Thus, if the investor wants the protection and the only way to get prois to charge a higher yield, then the resultant larger debt service payments could disqualify the homeowner.

Mark Korrell responded that MGIC has put together securities with below market coupons, discounted from 5 to 10 points. These securities give considerable downside protection on falling rates and provide the same yield as a par security at the market rate. He suggested that this is a good case for looking at variable rate instruments that float with the market.

James Murray added that the low coupon mortgage-backed securities of FNMA have been particularly attractive to pension funds for those reasons. As the savings and loans attempt to dispose of old low yielding mortgages in its portfolio, more will be put into mortgage-backed securities.

Another pension fund manager said that we are in a disinflation environment, and that longer term investments look more attractive. His fund has a substantial portion of its assets in long-term Government bonds. If the rate of inflation slows down, mortgage securities could be attractive if they matched Government bond call protection characteristics. The mortgage securities that exist now do not have these characteristics, and as such, they do not serve his needs.

A representative from Salomon Brothers indicated that his firm has been involved with trying to create products out of mortgages, which meet the different maturity needs and different risks and reward needs of investors.

Raymond A. McLaughlin, Senior Vice President, Paine Webber Real Estate Securities, Inc., addressed safety considerations of mortgage backed securities. He pointed out that most of the pools in MBS are fully collateralized and do not have quite the volatility in rate changes as occur in the case of corporate bonds. GNMA MBS are backed by the full faith and credit of the U.S. Government, offer liquidity, geographical dispersion in a pool (not affected by economic conditions of a particular area), and the mortgages are 100 percent insured by FHA or guaranteed by VA. For FHLMC or FNMA mortgage backed securities, payment of principal and interest is guaranteed by the Mortgage Corporation and FNMA, respectively. Privately issued mortgage-backed securities are usually insured by national private mortgage companies owned by major corporations.

Brian Hays, Managing Director, A.G. Becker Incorporated, discussed the issue of liquidity. He expressed concern over the possible phase out of GNMA securities which provide a standard to which other securities are compared in terms of yield and liquidity. He noted that GNMA's do not cost the Government a cent, that in fact, they return money to the Government. He felt that the liquidity and development of the entire MBS market will be set back several years if GNMA's were to be phased out. The two basic considerations for liquidity are:

- volume outstanding in any issue or class of securities;

- continuous flow of new issues.

Mr. Hays noted that FHA project pools -from the auctions of projects – are becoming more important in the securities market. However, variable and alternative rate mortgages which lack standardization will not be as important in the near future.

Dr. Arnold Diamond, HUD, Director of the Office of Financial Management, discussed a paper concerning the extent of pension fund investment in housing finance and the need for good statistics on direct and indirect investment activity by the pension funds. Pension funds have been providing a growing source of funds for residential mortgages through investment in securities, the proceeds of which are used to finance such mortgages. Data indicates that:

- the ratio of housing mortgage related investment to total assets held by private non-insured pension funds rose from 2.9 percent in 1975 to 6.9 percent in 1981, a growth of 138 percent;

- during the last three years, pension funds accounted for over 4.1 percent of the annual increase in long-term residential mortgage loans outstanding;

The final session focused on direct mortgage investment. Mark K. Posnick, Executive Vice President, Margaretten invest directly in a package of whole loans secured by condominiums, second homes, vacation properties and second mortgages, it is able to obtain higher yields than if those mortgages were packaged in security form. Pension funds can also tailor investment in whole loans to their needs, e.g., cash flow, yield, and geographic considerations.

John D. Reilly, President, Reilly Mortgage Group, Inc., discussed project loans with equity kickers (rental apartment business). The economics of the rental market works in reverse of the single family market. If people cannot afford to buy, they still need a place of residence. Mr. Reilly said that the $1.5 billion of loans serviced by his company has never had a lower delinquency rate than at present. There are two basic types of project loans: 1) an FHA rent subsidy (e.g., Section 8) and, 2) unsubsidized loans (which have an equity kicker). Project mortgages offer liquidity, safety, and real yield and can also be tailored to investor needs. There is also call protection and an appreciation kicker.

Robert Tobin, Vice President, Merrill Lynch White Weld Capital Markets Group, noted that the accelerated payment mortgage (a graduated equity mortgage or GEM concept) is a step toward attempting to combine housing affordability and the need for protection against the risk of default is no longer the essence of the deal. Instead, cash flow and how quickly it can be obtained measures the attractiveness of investments. The concept of GEM is to index for increased payments and apply the payments to principal, not interest. Some of the advantages of GEMs include:

- debt options market in making mortgage investments, e.g., investors will be able to write options, that is gain income, by writing contracts to sell those assets in portfolios;

- the shorter term provides a hedge to protect buyer and seller;

- refinancing ease because the principal is amortized quickly.

Richard B. Worely, Partner, Miller, Anderson & Sherrerd, presented an overview on alternative strategies. To make money for his clients, he has put about 90 percent of the fixed income portions of their assets into a whole array of mortgage securities, direct real estate and foreign securities. Fixed income mortgages offer better yield, quality, liquidity, and better maturity structure for a pension fund than other fixed income securities. Investment in mortgages can seem complex, but once one learns how to do it, it is surprisingly simple. Some real disadvantages of the mortgage securities are: 1) that the current coupons are callable at the option of the borrower, and 2) they is an upturn in housing there usually will be rapid prepayments. A recent coupon rate that is by today's standards very low and is assumable, is least likely to get prepaid. Mortgages likely to have rapid prepayment include those that are hard to assume, those on properties located in an area of geographic mobility, and those with high interest rates.

June 9

The third conference on pension-fund investments sponsored by the U.S. Department of Housing and Urban Development (HUD) was opened by Dr. June Koch, Deputy Under Secretary for Intergovernmental Relations. Dr. Koch explained that the goals of the prior two conferences, held in February and June, 1982, were to learn from the top private and multi-employer pension funds what needed to be done to increase the level of investment by pension funds in housing, open lines of communication, and identify how housing investment instruments can be made more suited to pension funds. The purpose of this conference is to meet with the investment advisors of the pension funds to communicate some of the changes already implemented and currently being considered, and to explore further how to tailor instruments that meet the needs of the homebuyer at one end and the potential pension fund investor at the other.

Samuel R. Pierce, Jr., Secretary of the U.S. Department of Housing and Urban Development, who pioneered these efforts, addressing the session, said:

- in partial response to proposals made by pension fund managers at earlier conferences, we initiated a comprehensive improvement in the GNMA securities program, called GNMA II. The focal point of the new approach is a central paying agent, which makes possible advances in the ways investors are paid and the way securities are traded. GNMA II also creates multiple issuer or jumbo pools in order to make much smoother the consistency in cash flows to investors. It will also provide one stop service at Chemical Bank in New York, to respond to all investor interests and needs.

- HUD recognizes that the need for new sources of financing for housing could

- since private pension funds today have assets totaling approximately five hundred billion dollars, this was a potential source of mortgage investment funds that we could hardly ignore.

- our examination indicated that the reasons pension funds have avoided mortgage investments (only three percent of assets, historically, were directed into the mortgage market) included: 1) excessive degree of regulation - ERISA discouraged normal transactions involving mortgages or mortgage-backed securities, 2) mortgage investments do not offer call protection and 3) unfamiliarity.

- to deal with these problems, 1) HUD has been working with the Labor Department to eliminate unnecessary restrictions under ERISA, and last May those restrictions were significantly eased; 2) HUD is working with the Treasury Department to seek a revenue ruling that would allow mortgage pool arrangements to provide call protection; and 3) the Administration is considering legislation that would create a regulatory framework for mortgage-backed securities in the form of Trusts for Investments in Mortgages (TIMs). This proposal is now being reviewed by the Treasury and Cabinet Counsel on Economic Affairs.

- this conference and others like it are intended to provide pension fund managers with information about the potential for investment in mortgages and mortgage-backed securities, and to receive feed-back on how to make these investments more attractive.

Jeffrey N. Clayton, Administrator, Pension and Welfare Benefit Program, Department of Labor, detailed the changes in ERISA regulations and the Prudence Rule, as follows:

- the Department's philosophy is to let the

- the Department views Section 404, of ERISA, the Prudence Rule, as procedural, that is, that managers follow a prudent procedure in making investment decisions. The prudence and exclusive purpose requirements call upon a plan fiduciary to act in a manner consistent with appropriate considerations of the facts and circumstances relative to the individual plan and the particular investment. The factors for consideration include: diversification, liquidity and objectives of the plan, and the characteristics of the investment itself. The Prudence regulation was intended to be flexible in the selection of investments, however, the investments must be made for the exclusive purpose of providing benefits solely in the interest of plan participants and beneficiaries. The Department has taken a hard line in the area of social investing, which is defined as making investments at below market rates, sacrificing economic return or yield, diversity or some economic factor. That applies not only to investments in housing or real estate, but it applies to the use of pension funds by corporations to fend off unwanted takeovers.

Although the Department does not have authority to grant exemptions from ERISA's fiduciary requirements, it has issued class exemptions with respect to prohibited transactions, intended to make it easier for pension plans to invest in housing. Prohibited transaction 82-87, which was finalized in May 1982, eliminated technical kinds of prohibited transactions if the finance arrangement is consistent with Section 404 (fiduciary standards).

The Department has also provided the following:

- an exemption which deals with mortgage pools to allow people who put together mortgage pools to have transactions with parties in interest, in order to allow ordinary mortgage pooling situations to function.

regulation, the certificate itself is the plan asset, not the underlying mortgages.

- regarding private mortgage-backed certificates, a plan asset regulation, which will be coming out later this summer, says that if not more than half of the pool is owned by pension funds, or, when pension funds own 50 to 80 percent of an issue, as long as no single pension plan owns more than 25 percent of that pool, then the private securities are considered as plan assets, rather than the underlying mortgages.

- drafting an amendment to the current class exemption to cover multifamily housing.

Jeffrey Mamorsky, Partner, Shea and Gould, presented the impact of ERISA changes from the perspective of money managers. He briefly reviewed the various class exemptions and plan asset regulations. In interpreting ERISA's Prudent rule standard as it relates to mortgage investments, he noted that even if a transaction is subject to a prohibited transaction exemption, it does not relieve a fiduciary or other party of interest from a general fiduciary responsibility standard. To obtain adequate information before plan trustees make loans of plan assets, courts have been leaning toward a prudent expert standard. Plan sponsors should retain the services of professional money managers when dealing in a specialized field such as investment in residential housing. Regarding the Department of Labor's view that a return below prevailing market interest rates and social investing are imprudent, Mamorsky urges the Department to reconsider this hard line. He believes a participant loan program should be viewed as a comparable investment available to a plan within the context of the entire portfolio as espoused in their prudence regulations and letters. Prudence is not an issue as long as the financing or funding objectives of the plan.

In response, Jeffrey Clayton explained the Department of Labor's position on below market rates, that you have to look at the overall yield. Market rate is defined as what people are getting for their money in the market, and you can't go below that. There are a lot of quality mortgage loans which can be made or purchased without going below market. But, from the view point of a money manager, Mr. Mamorsky indicated that his clients are afraid to go into certain areas whether it is prudent or not, because of the inflexibility of the Labor Department in requiring that prevailing rates be charged on these loans.

A question was raised regarding private pools. What if you buy in at 50 percent and while you are holding the certificate it comes to a point where 90 percent of the pool is owned by a pension fund? Mr. Clayton responded that then the character of the pool would change, and if the mortgages in the pool did not qualify for the class exemption, there might be a prohibited transaction. For the garden variety of mortgages that you normally buy in the secondary market, however, there are not going to be any prohibited transactions regardless of the structure of the pool.

Several questions were raised concerning the absence of call protection on mortgages and mortgage-backed securities. Dr. Koch said that call protection would be covered in detail at tomorrow's session.

Clayton briefly commented on two bills before Congress designed to remove real or perceived barriers to pension fund investments. He is opposed to H.R. 1418, the Wyden-Gephardt bill, which amends ERISA by allowing pension fund investments in practically all mortgage-related instruments as long as an independent fiduciary is used by pension funds. H.R. 1179, the Erlenborn bill, which broadens ERISA to provide for more pension fund investments in residential mortgages, but also codifies current DOL requirements

opment, said Dr. Koch, also does not support the Wyden bill.

Clayton said further that the Department of Labor would recognize and accept definitions of "qualified" mortgage pools in terms of the private mortgage-securities if the Federal Home Loan Bank Board or other regulatory agencies established some kind of qualified standard, if the pool met certain SEC requirements, or if the security had a specific rating.

In concluding, Dr. Koch reiterated that the Labor Department has gone a long way towards eliminating most of the restrictions, and feels that ERISA should not be a problem for pension funds or money managers.

June 10

Warren Lasko, Executive Vice President, Government National Mortgage Association, presented an overview of mortgage-backed securities and innovations at GNMA. Lasko indicated that in the post thrift institution deregulation environment, the secondary market is the primary source of housing funds based largely on securities, not whole loans. In this market, GNMA has coupled the already strong characteristics of its securities, its quality, yield, liquidity, and timeliness of payment with new technology. This new program, called GNMA II will begin on July 1 and issue its first securities on August 1. The focal concept is a central paying agent (Chemical Bank) where the securities will be processed and all payments made. The securities still offer a full faith and credit guarantee, monthly pass through of all scheduled collections of principal and interest, as well as all early recoveries of principal. All holdings in GNMA II will be paid with a single payment from Chemical Bank and a single remittance. The central paying agent is also the transfer agent, processes pools, and answers all questions - one stop service.

In addition, GNMA II provides two separate tracks for issuers and investors, called custom pools and multiple issuer pools. Custom pools are the GNMA I's, where there is only one issuer of securities, one pool. Multiple issuer or jumbo pools give the option to the issuer and investors to do the deal and it is possible for all of the loan packages of various issuers to be combined into a jumbo pool. When you buy multiple issuer securities from an issuer, you are buying an amount equal to the loan package contributed by that issuer, but the payments received will be prorated across the entire jumbo pool.

Robert J. Mylod, President, Federal National Mortgage Association provided an overview of the secondary mortgage market. For the remaining seven years of the 1980's, he projected that housing will need about $230 billion of financing a year, or approximately $1.6 trillion total. If the secondary market continues at its current rate, that will mean some $800 billion in mortgage financing would come from the secondary market during that period. Mylod outlined the characteristics of the FNMA mortgage-backed security, which was modeled after the original GNMA, but with some refinements. It offers a 100 percent guarantee backed by FNMA, with full and timely payment of interest and principal, uses a central paying agent and transfer agent, allows for a multi-lender pool, provides for different maturities, offers liquidity, and standardization.

Dr. Kent Colton, Executive Vice President, Federal Home Loan Mortgage Corporation, summarized some of the problems investors have had in purchasing mortgages and how these issues are being addressed, discussed two Freddie Mac securities - Participation Certificate (PC) and Collateralized Mortgage Obligation (CMO), and concluded with who holds Freddie Mac PCs from an investment perspective. Freddie Mac, as well as FNMA and GNMA, have provided an

underwriting standards with its pooled mortgages. They are working on providing call protection, guaranteeing minimum repayment schedules, and providing a put option. They are trying to give investors a mortgage instrument with a very competitive yield, but with features of a mortgage or mortgage investment wanted by investors.

The new collateralized mortgage obligations, announced May 31, 1983, are general obligations of Freddie Mac, backed and secured by mortgages and paid on a semi-annual basis to provide a secure flow of funds. The bonds have been split into three classes: fast pay-off, intermediate and long-term pay-off, with a guaranteed average life of 3.2 years, 8.6 years, and 20.4 years. The first CMO issue was a billion dollar package, the largest public issue of a mortgage related security in the country's history. Finally, pension funds are the second highest investor in PCs (holding 18 percent).

Dr. Mark Riedy, Executive Director of the Mortgage Bankers Association addressed the role of the mortgage bankers in the secondary market. Riedy projected that $150 to $200 billion will be needed annually in the mortgage market. Mortgage bankers basically originate and sell mortgage loans, service them afterward, passing the monthly payments on principal and interest to investors, as well as taxes and insurance. Historically, they specialized in FHA/VA originations (85 percent), but in 1982, they accounted for 16 percent of total conventional single family mortgage originations. In the mid-70's, about 30 percent of all single-family originations were sold into the secondary market, in 1980, about 49 percent, and in 1982, less swaps, about 60 percent were sold. Pension funds are a logical outlet for mortgages because their liability structures are long term and they are the only set of institutions that still have long-term liability structures tailored to what a mortgage market instrument has to offer.

adjusted mortgage, which offered an attractive investment alternative for the fund.

Harley Snyder, President of the National Association of Realtors; provided a look from the private perspective. The Realtors have been working to see that the Trusts for Investment in Mortgages (TIMs) come into being. They feel that the spread between mortgage borrowing and corporate and government borrowing could narrow, allowing more affordable housing, if some regulatory freedoms were achieved. Some examples include: 1) varying lengths of securities tied to the same pool (the fast pay-slow pay mechanism), 2) allow reinvestment of prepaid mortgages, 3) allow bond-like interest and principal payments, 4) allow the sale of when issued securities, 5) provide tax treatment that allow any discounts to be treated as capital gains, not income, 6) allow higher mortgage purchase limits for FNMA and FHLMC, and 7) seek a safe harbor for inadvertent acquisition of insider mortgages.

Snyder also reviewed the Realtors' and National Association of Home Builder's new program called the Home Investors Fund - the first mutual fund for conventional mortgage-backed securities. The intent was to provide all types of investors the opportunity to participate in the benefits of mortgage-backed securities and to expand the conventional MBS market to bring more capital to housing. The fund makes its payments on an optional quarterly basis; if desired, it reinvests principal payments on behalf of the investor, keeping the shareholder fully invested if the mortgage is prepaid; has a full time investment advisor; offers liquidity and diversification.

David Stahl, Executive Director, National Association of Home Builders noted that increasing the level of pension fund investment in residential mortgages has been a major priority of the home builders for many years. Behind this effort is not getting its fair share of available credit. The abolition of Regulation Q (which they opposed), and the deregulation of financial institutions ended the system of specialized sources of funds. Increasing pension fund investment in mortgages will help to increase the flow of funds into the secondary market, bring interest rates down to affordable levels, and reduce the severity of housing cycles.

Conventional mortgage-backed securities, pioneered by the Bank of America in 1977, have been the fastest growing vehicle for opening up public sector pension funds for housing. The homebuilders look forward to the introduction of legislation by the Administration on eliminating statutory and regulatory barriers to increased use of conventional MBS. In the meantime, the market is evolving other vehicles for overcoming risks and uncertainties of existing pass through securities, including: 1) cash flow bond or builder-backed bonds - which is a debt borrowing collateralized by the cash flow from a pool of mortgages rather than the general corporate assets of the issuers, 2) home investors fund, and 3) Freddie Mac collateralized mortgage obligation (CMO). NAHB does not feel, however, that the Department of Labor has done nearly enough to remove regulatory barriers to increased investment in mortgages.

William B. Ross, Senior Vice President, MGIC Investment Corporation, is involved in improving the security quality of the MBS, via the insurance process, so that the mortgage security investor is getting the benefit of the degree of certainty he wants. The private mortgage insurance industry has developed degrees of protection against mortgage default, delinquencies, and special hazard risk. They have also developed a second customer service activity or match maker services, which brings mortgage investing institutions together with mortgage originating institutions via private conduit services. Conduit services do the same things as FNMA and Freddie Mac, aggregate mortgages from a variety of sources, arrange for local servicing, provide investor administration, acquire needed protections for the collateral and guarantee the advances of delinquencies.

Lewis S. Ranieri, Managing Director of Salomon Brothers, addressed the marketing of MBS's. He emphasized that the MBS secondary market is a very well established, very mature market in which the same functions can be performed as in the Government market, the corporate market and the equity market. The regular trading volume well exceeds what goes on in the corporate bond market every day and often surpasses the trading volume in the Government market. They have been able to maintain the traditional spreads between the bid and offering and provide comparable liquidity to government issues, and have exceeded the liquidity in corporate bond issues. This market mirrors all of the other staid debt markets in this country, but also has significant advantages, such as: 1) given the different coupons, maturities and credits, you can create a synthetic money market instrument, 2) can do different types of spread and yield curve arbitrages, etc. Investors can manage a mortgage portfolio in the same context, in the same way as a government or corporate bond portfolio.

Dexter E. Senft, Vice President, Fixed Income, First Boston Corporation, discussed cash flow considerations. In looking at cash flow, you need to consider the causes and effects of prepayments, as well as payment delays. Wall Street prices securities based on a 12 year prepayment scenario. It is important to look at prepayment patterns over time. During a rallying market, mortgages become attractive to refinance if they carry high interest rates, and prepayments rise rapidly in a period where prices have increased substantially. Prepayments also have a certain determinant in the overall

Martin Leibowitz, Managing Director of Bond Portfolio Analysis, Salomon Brothers, addressing comparative yields, pointed out that investors buy mortgage-backed securities for yield spread - incremental yield or return. Despite wide variations between GNMA's and 10 year Treasuries, the spread has always been positive, and significantly so. Investors cannot look at yield spreads alone when dealing with mortgage related securities, because of the prepayment uncertainty and surprises. Prepayments can "hurt" the investor, but they do not "kill" you so much as to make premium GNMA's or any other securities, not interesting at certain levels, as an alternative to relatively short term types of instruments. As the prepayment rate increases, the cash flow yields go up, the average life shortens, and the spread widens. During a strong rally mortgages performed respectably, while during periods of downward movement, mortgages were very productive in terms of avoiding the full deterioration of the market. In good and bad rallies, mortgage-backed securities are consistent performers.

Robert Tobin, Vice President, Merrill Lynch, considered how to get safety in mortgage-backed securities by pointing out some of the causes for concerns and risks in these investments. The bulk of the risks, however, are covered by some form of insurance. Some of these risks include: credit risk, collateral risk, diversification, maturity risks, payment risks, sector risk and trading risk. Each of these however, also have accompanying strengths. In terms of ratings of new private conventional insurers, there are at least two triple A ratings by Standard and Poors - no risk in terms of loss due to an interruption of the timely principal and interest. Government-sponsored mortgage-backe securities enjoy full-faith and credit of th U.S. (GNMA) or guaranteeing agency (FNMA, FHLMC).

Brian Hays, Managing Director of A.G.

liquidity of mortgage-backed securities said that they are substantially more liquid than corporate bonds, somewhat more liquid in most cases than U.S. Government Agency issues, very close to the liquidity to U.S. Treasury notes and bonds, and more liquid than many of the inactive notes and bonds. The most significant item in the liquidity picture is the continued flow of new issue volume to maintain the trading and sales interest in the security. The other important elements are secondary market activity, the number of tradeable issues in a given security class, ease of handling the securities operationally and the perceived degree of safety of any particular security class. Recently, there has been growth in new dealers in the secondary market as a result of the high level of activity and increasing competitiveness in trading. There is close to a trillion dollars of outstanding single family mortgages that could become securities. Standardization is the key in building a concentrated volume and framework of securities.

A question was raised on the best way to forecast prepayment rates. The responses included: 1) correlation to the market price becomes more effective if you lag it by 90 days; 2) housing starts is one part of the equation; 3) useful to have a sense of how prepayments vary as a function of mortgage rates, mortgage and housing activity; 4) refinancings become a significant factor when mortgage rates drop between 200 and 300 to 350 basis points.

The afternoon session was devoted to strategies, call protection and levels of investment.

Dr. Koch opened the session with an update on Administration initiatives. Two strong interests within the Administration include: 1) increasing the sources of housing finance, - e.g. pension funds, and 2) privatizing the secondary market. To some extent inertia or the lack of familiarity with the mortgage market is inhibiting pension fund investment, not ERISA. The two issues that surfaced at the prior conferences and pension fund working group sessions were uniformity or standardization of instruments and call protection. The difficulty in providing call protection concerns current tax law, which taxes an MBS at the issuer level unless it qualifies as a Grantor-Trust. To be a Grantor-Trust there cannot be any active management and all payments of principal and interest must be passed through to investors, including prepayments.

To deal with this the Administration has introduced GNMA II, begun pooling project mortgages under the GNMA tandem program (where call protection is offered), and prepared a request for an IRS revenue ruling that would allow reinvestment of principal from mortgage prepayments. The focus of the Treasury Department and the Administration, however, is on the wider spectrum known as TIMs whose purpose is not just to increase the source of housing finance, but really to privatize the secondary market. TIMs is a legislative and regulatory framework that would allow the creation of flexible instruments with different payment streams and with reinvestment latitude. Some of the questions that still need to be resolved concern its feasibility in terms of pricing and marketing, and whether government-sponsored entities should be allowed to issue TIM's.

John N. Dickie, Director of the Division of Financial Analysis, HUD, summarized the level of pension fund investment in residential mortgages and mortgage-backed securities. Dickie projects the need for housing to be anywhere from $200 to $400 billion annually, depending on different assumptions. In 1982, HUD attempted to quantify pension fund investments by piecing together available data from sources such as GNMA reports, FHLMC, Treasury's survey of Using this methodology HUD estimated that at the end of 1981 private non-insured pension funds invested $19.8 billion in housing investments , of which $1.5 billion was in direct mortgages and $18.3 billion was in mortgage-backed securities and obligations of housing oriented, Federally sponsored agencies. This figure was related to the latest SEC data, which indicated that non-insured pension funds have seven percent of their assets in housing related investments. This compares with 14 percent invested by state and local retirement funds. However, HUD is not quite satisfied with this data because the SEC figure is recognized to be less than the true universe and that a common impression is that mortgage and mortgage related securities represent two to three percent of pension fund assets (which total around $750 billion).

In order to get good statistical data on pension fund investment, in September 1982, HUD entered into a contract with a private research firm to conduct surveys of mortgage lending activities and holding of mortgage related securities by pension funds. Preliminary results of the survey and the Department of Labor data indicate the following: asset growth rates for corporate plans from 1978 to 1980 varied from 17 to 30 percent per year; growth rates for union funds were 14 to 20 percent; growth rates did not vary by asset size; corporate pension funds invest four and one half percent of their assets in mortgages and mortgage related securities; union funds invest 22½ percent of their assets in mortgages and mortgage related securities. GNMA's were the most widely held mortgage related investment of the corporate plans, while direct holdings and mortgage loans are most important for union funds (13 percent of assets). In summary, union and pension funds have made substantial housing investments, with evidence of growing interest in such investments.

Richard B. Worely, a Partner in Miller, Anderson and Sherrerd, and a mortgage market advisor to pension funds, presented his perspective. He indicated that the problem in investing in current coupon mortgages is the difficulty in making a judgment on volatility. About 95 percent of the fixed income assets that they manage are invested in the mortgage market - FNMA and FHLMC pass-throughs and PC's. In evaluating mortgages, you have to understand that a prepayment always helps you when your security is at a discount and hurts you if the security is at a premium. Because of enforcement of due-on-sale, conventional mortgages of FNMA and FHLMC probably pay off faster than FHA's loans, which are assumable by the borrower. He points out the attractiveness of FNMA yields and liquidity, indicating that you can do business in this market much more effectively than in the corporate market and government market. Some of the disadvantages include: 1) it can be difficult to convince clients of the merits of these investments, 2) when interest rates are high, you get less money back for reinvestment; when low,. you get more money back which must be reinvested at lower yields 3) uncertainty in calculating returns on the mortgages, and 4) mortgages may not be liquid enough for ultra market timers, although the yields usually make ultra timing unnecessary.

Blake Eagle, Senior Vice President and Director of Real Estate, Frank Russell Company, is a pension consultant who represents corporate plans and works with clients on the investment side. He described the activities and role of investment managers. Investment managers in looking at new markets try to find out why pension funds have avoided certain markets in the past and why it is such a good deal today. Pension funds do not like the mortgage market because it lacks liquidity, too fragmented, concern about usury violations, call protection, social investing issues, governmental interference, ERISA ambiguity, etc. However, through the conference he is learning about some of the attempts being made to solve these problems. The door is beginning to open for more pension fund involvement but there is a need for further removal of the barriers to make the investment more competitive. He also suggested that HUD take a look at the insurance company guaranteed investment contracts, since this is a way a number of pension funds have indirectly invested in the housing market. Further, he added that there has been a tremendous lack of understanding and communication between the mortgage/capital markets and the pension funds.

Larry Fink, Managing Director of First Boston Corporation addressed the issues and prospects for call protection. The biggest impact in the mortgage-backed securities market occurred the first week in June when First Boston and Salomon Brothers priced a billion dollar Freddie Mac Collateralized Mortgage Obligation (CMO), which was purposely structured for buyers looking for call protection. One problem is that because it is a general obligation, a collateralized debt instrument, only the highest quality concerns in the private sector will be able to issue something of this structure, and many do not believe in issuing collateralized debt. One way to overcome this is to create multi-class issues under a sale of asset treatment, i.e., off-balance sheet financing. This could be accomplished through TIMs or through a partnership agreement. He believes that there must be a role for agencies (FNMA and FHLMC) in the issuance of a TIMs-like product. Further, the TIMs initiative is probably the most significant idea that is going to be confronting the mortgage industry in 1983. To help the mortgage industry today, we are going to need to create a current coupon mortgage like the CMO with call protection or have the ability to create some type of TIM's structured instrument with a sale of asset treatment. We also need to address the issue of duration in an investment.

February , 1983

Associate Chief Counsel (Technical)
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Attention: CC:IND:S

Re: HUD and GNMA: Request for Ruling Under Code Sections 671 and 7701 Regarding Mortgage Pool Grantor Trusts

Dear Sirs:

The United States Department of Housing and Urban Development ("HUD") and the Government National Mortgage Association ("GNMA") respectfully request rulings regarding certain federal income tax consequences pursuant to Sections 671 and 7701 of the Internal Revenue Code of 1954, as amended (the "Code"), and cases, regulations, and rulings thereunder, in connection with the proposed creation and sale of certain pass-through securities (the "Certificates"), as described below.

HUD and GNMA are both instrumentalities of the United States Government, and, as such, are not taxpayers.

Statement of Facts

A corporation or a financial institution in other than corporate form ("Corp. X") will form a pool (the "Pool") of mortgage loans (the "Mortgage Loans") secured by first liens on one-to-four family residential properties. The Mortgage Loans in a Pool will consist entirely of either (i) conventional loans (*i.e.,* uninsured by any governmental agency or instrumentality), or (ii) loans insured by the Federal Housing Administration ("FHA") or Farmers Home Administration ("FmHA"), or guaranteed by the Veterans Administration ("VA"). Pools conforming to (i) and (ii) above are hereinafter referred to as Conventional Loan Pools and Insured Loan Pools, respectively. The residential properties may, for this purpose, include condominiums, units in planned unit developments, or units in cooperative apartment corporations (in which case the Mortgage Loan would be secured by shares of stock in the cooperative apartment corporation as well as by an assignment of the proprietary lease). Loans (or installment purchase contracts) secured by manufactured homes (and, in some cases, the site on which the home is located) that meet relevant HUD design and construction criteria may also comprise some or all of the Mortgage Loans in a particular Pool.

The Mortgage Loans will bear interest payable monthly at fixed annual rates and will amortize in the manner specified in their respective amortization schedules over a period not to exceed 40 years.

The Mortgage Loans (or participation certificates therein) in a Pool will be assigned in trust (the "Trust") to a commercial bank or other entity having trust powers (the "Trustee"), or will be assigned or set aside in a manner described in either Revenue Ruling 70-544, 1970-2 C.B. 6, or Revenue Ruling 70-545, 1970-2 C.B. 8, or Revenue Ruling 71-399, 1971-2 C.B. 433, or Revenue Ruling 80-96, 1980-1 C.B. 317 in exchange for Certificates, which will represent ownership of, or, in the case of mortgage-backed securities guaranteed by GNMA, be proportionately based on and backed by, the Pool and other assets (including the investment contract described below) comprising the trust fund (the "Trust Fund"), as described below. Subsequent to or concurrent with the assignment in trust of the Mortgage Loans in exchange for the Certificates, Corp. X will sell the Certificates to investors, either directly or through underwriters. Corp. X will service respects to a servicing agreement accompanying a mortgage pool grantor trust on which the IRS has favorably ruled in an existing Revenue Ruling. In the case of so-called "conduit" Pools, where more than one level of servicing is required, Corp. X's servicing responsibilities may be performed directly or by sub-servicers, with Corp. X being ultimately responsible to certificateholders for any servicing activities performed on its behalf.

On a fixed day in each month Corp. X will distribute to each Certificateholder one month's interest on the then-outstanding principal balance of such holder's Certificate. Such interest will be equal to a specified pass-through rate (the "Pass-Through Rate"), which will be a single rate for a particular Pool,* the difference between the interest rate borne by the Mortgage Loans in the Pool and such Pass-Through Rate representing a servicing fee to be retained by Corp. X. Assuming performance in accordance with the terms of the investment contract, no principal will be distributed until after the Contract Term, as described below.

In addition to the Mortgage Loans and any insurance policy, guaranty agreement, letter of credit, or other form of arrangement designed to protect Certificateholders against loss and/or to assure an uninterrupted flow of scheduled payments notwithstanding delinquencies on the assets comprising the related Pool, the Trust will contain an investment contract in force on the date of formation of the Trust (the "Contract") between the Trustee on behalf of Certificateholders and either Corp. X itself or another entity (the "Obligor"). By its terms, the Contract will provide that, during a specified period from the date of formation of the Trust (the "Contract Term"), upon receipt by the Obligor, either directly from Corp. X or from the Trustee, of both scheduled principal payments (*i.e.*, regular principal amortization) and unscheduled principal payments (whether such unscheduled principal payments occur through voluntary prepayments by the mortgagors or through foreclosure on the property securing any defaulted Mortgage Loans) on the Mortgage Loans (including for this purpose any substitute mortgage loans or any substitute mortgage pass-through certificates), the Obligor will deliver to the Trust obligations of one and only one classification (*e.g.*, Treasury obligations, or obligations issued or guaranteed by United States corporations meeting specified minimum criteria, or obligations issued or guaranteed by agencies or instrumentalities of the United States, or certificates of deposit issued by depository institutions meeting specified minimum criteria, or guaranteed investment contracts issued by insurance companies or other financial institutions, or mortgage pass-through certificates, or mortgage loans, including participation certificates therein) (the "Contract Obligations") specified in the Contract and meeting all designated criteria as set forth in the Contract. Among such criteria will be requirements that:

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* In the event that the investment contract provides for the purchase of a substitute investment which, net of any servicing fee, bears interest at a rate less than the Pass-Through Rate, interest on such substitute investment will be passed through at the specified and fixed pass-through rate for that investment, and not at the fixed Pass-Through Rate applicable to interest on the Mortgage Loans originally in the Pool.

(1) the Contract Obligation be provided in a principal amount equal to the principal proceeds received, including principal proceeds on any Contract Obligation previously delivered to the Trustee;

(2) the Contract Obligation bear interest at a rate not less than the rate specified in the Contract;*

(3) in the case of Treasury obligations, bank certificates of deposit, or other non-mortgage substitute investment, such Contract Obligation mature not earlier than the end of the Contract Term and not later than 13 months after the end of the Contract Term;

(4) in the case of mortgage-pass-through certificates (*e.g.*, GNMA Securities), such Contract Obligation mature not later than (based upon the latest-maturing loan in the pool backing such mortgage pass-through certificates) the latest-maturing Mortgage Loan originally in the Pool plus the original Contract Term;

(5) in the case of mortgage loans or other similar installment purchase obligations, such Contract Obligation

(a) amortize in accordance with a schedule (running not more than 5 years longer or not less than 5 years shorter than the average original maturity of the Mortgage Loans in the Pool) that conforms to the type of amortization schedule applicable to the original Mortgage Loans in the Pool, and mature not later than the latest-maturing Mortgage Loan originally in the Pool plus the original Contract Term, and

(b) be a conventional mortgage loan if the Pool is a Conventional Loan Pool, or be either insured by the FHA or FmHA or guaranteed by the VA if the Pool is an Insured Loan Pool;

(6) in the case of mortgage loans or other similar installment purchase obligations where the Pool is a Conventional Loan Pool (other than a Conventional Loan Pool that is 100% guaranteed or insured), such Contract Obligation will not;

(a) if all Mortgage Loans in a Pool are secured by property located in a single state, be secured by property located in a state other than such single state;

(b) if all Mortgage Loans in a Pool are secured by property in more than one state, cause, at the time of its transfer to the Pool, the percentage by principal amount of Mortgage Loans in the Pool that are secured by property located in a particular state to be more than 5 percentage points greater than the percentage by principal amount of Mortgage Loans secured by property in such state or jurisdiction at the date of formation of the Pool;

(c) cause, at the time of its transfer to the Pool, the average original principal balance of the Mortgage Loans in the Pool to be $10,000 greater than the average original principal balance of the Mortgage Loans in the Pool at the time of its formation;

(d) cause, at the time of its transfer to the Pool, the percentage by principal amount of Mortgage Loans in the Pool that have original loan-to-value ratios in excess of 80% ("Over 80% Mortgage Loans") to be more than 5 percentage points greater than the percentage by principal amount of Over 80% Mortgage Loans at the date of the formation of the Pool;

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* Any interest earned on the Contract Obligations in excess of the amount earned at the pass-through rate applicable to such Obligations may be retained by the Obligor or servicer of the Mortgage Loans, as provided pursuant to the Contract. In no event may the Contract provide that such excess interest be passed through or in any way be credited or inure to the benefit of the Certificateholders.

(e) cause, at the time of its transfer to the Pool, the percentage by principal amount of Mortgage Loans in the Pool that are secured by properties that are not one-family detached owner-occupied primary residences ("Primary Detached Homes") to be more than 5 percentage points greater than the percentage by principal amount of Mortgage Loans that are not secured by Primary Detached Homes at the date of the formation of Pool;

(f) have an original principal balance that is more than $15,000 larger than the largest principal balance of any Mortgage Loan originally in the Pool; or

(g) violate any other applicable criteria specified by any Pool insurer or any rating agency in connection with its rating of the Certificates.

Because high-interest-rate mortgage loans will prepay heavily in a low-interest-rate environment (thereby increasing both the number of mortgage loans the Obligor would be required to deliver pursuant to the Contract and the difficulty of obtaining Contract Obligations meeting the specified requirements), a Contract calling for delivery of mortgage loans may permit the Obligor, under precise conditions, to deliver an alternative specified classification of Contract Obligation. Such precise conditions, as set forth in the Contract, would refer both to the existence of a designated spread between the interest rates on current mortgage originations and the Pass-Through Rate, and to a rate of prepayment on the Mortgage Loans (or other comparable mortgage loans) in substantial excess of that anticipated by statistical analyses of mortgage prepayment history.

Performance under the Contract for both parties will be triggered by the receipt of principal payments during the Contract Term, at which time the Obligor will be required automatically to provide the Contract Obligations within 30 days, and the Trustee will automatically exchange for such Obligations the total of the principal received. Insubstantial amounts (not in excess of $25,000) may be carried over, deposited in an insured account in a depository institution for up to 30 days, and aggregated with the principal payments to be exchanged in the subsequent month). In the event that the Obligor fails to perform under the Contract for any reason, the Trustee will be obligated under the terms of the agreement establishing the Pool to distribute the principal proceeds to Certificateholders notwithstanding that the Contract Obligations themselves, or additional suitable investments, might be available for purchase by the Trustee in the market or otherwise at the same (or lower) price than that provided under the Contract. In such event, each Certificateholder, or the Trustee on behalf of the Certificateholders, will be entitled to pursue any legal remedies available against the Obligor.

In every sense, the investment of principal proceeds will be automatic. Neither Corp. X nor the Obligor will manage the Trust Fund during the Contract Term: upon receipt of principal proceeds, such proceeds will automatically be exchanged for the Contract Obligations (or distributed to Certificateholders if the Contract is breached) regardless of the availability of more attractive obligations, and regardless of the cost to the Obligor of obtaining or issuing itself the Contract Obligations at the time the Contract is triggered. By design, the activation of the Contract will alter neither the principal amount of the Certificateholders' investment nor the contracted-for return on such investment. Since the type of obligation to be delivered pursuant to the Contract will have been designated and disclosed to investors at the time of the initial marketing of Certificates in a Pool, any such investment will not vary the Certificateholders' investment as, in a very real sense, the contracted-for and automatic triggering of the Contract terms will have been an integral part of that initial investment. Also, as outlined above, the addition of mortgage loans to a Conventional Loan Pool (other than fully-insured or guaranteed Pools where such insurance or guarantee will be the primary focus of the investors) will not disturb original Pool criteria, which will be maintained. The requirement that only United States government insured loans be added to Insured Loan Pools accomplishes a similar result for these Pools.

After the expiration of the Contract Term, the Trustee will distribute to Certificateholders all subsequent principal collections received (including principal on any substitute investments), and the Trust Fund will be permitted to liquidate in a manner consistent with that outlined in the Revenue Rulings cited above.

Certificates of interest in the Trust will be freely transferable and exchangeable for Certificates of other authorized denominations representing the same aggregate interest in the Pool. Corp. X will cause to be maintained a Certificate Register evidencing the ownership of Certificates. A Certificateholder will obtain no right to vote or to control the operation or management of the Pool or related Trust Fund other than to consent to certain amendments to the governing agreement and, under certain circumstances, to the appointment of a successor Trustee. The death or incapacity of a Certificateholder will not terminate the Agreement creating the Trust Fund or such Trust Fund itself, or otherwise affect the rights, obligations, or liabilities of any other party.

Requested Rulings

On the grounds hereinafter set forth, we respectfully request the following rulings with respect to transactions conforming to the foregoing description:

A. The arrangement whereby the Trustee will obtain and hold the Mortgage Loans, Contract, and Contract Obligations pursuant to the Trust agreement will not be considered an association taxable as a corporation, but will be classified as a trust under Section 7701 of the Code.

B. Certificateholders will be owners of the Trust under subpart E of subchapter J of the Code.

C. The Trustee will be the trustee of a grantor trust and will be required to file Form 1041 under Section 1.671-4 of the Income Tax Regulations (the "Regulations").

D. Each Certificateholder will be treated as (1) the purchaser of and the grantor to the Trust of the underlying Mortgage Loans and Contract, and (2) the beneficiary of an undivided interest in the entire Trust, principal as well as interest. *See,* § 1.671-3(a)(1) of the Regulations. Accordingly, each Certificateholder will take into account in computing taxable income its allocable percentage of the total income, deductions, and credits of the Trust.

.E. The sale of Certificates transfers to the Certificateholders the pro rata share of their equitable ownership in each of the Mortgage Loans and the Contract in the Pool.

F. Each Certificateholder using the cash receipts and disbursements method of accounting will take into account its pro rata share of mortgage interest and other items of income (including prepayment penalties, assumption fees, and late payment charges to which it is entitled under the Trust agreement) as and when such payments are actually or constructively received by the servicing agent for the Mortgage Loans and the Contract Obligations. *See* Rev. Rul. 77-349, 1977-2 C.B. 20; Rev. Rul. 71-399, 1971-2 C.B. 433; Rev. Rul. 70-544, 1970-2 C.B. 6; and Rev. Rul. 70-545, 1970-2 C.B. 7

G. Each Certificateholder using the accrual method of accounting will take into account its pro rata share of mortgage interest and other items of income (including prepayment penalties, assumption fees, and late payment charges to which it is entitled under the Trust agreement) as such payments become due or are collected, whichever is earlier. *See* Rev. Rul. 71-399, *supra;* Rev. Rul. 70-544, *supra;* and Rev. Rul. 70-545, *supra.*

H. Prepayment and late payment penalty fees, assumption fees, and servicing fees paid to or retained by the servicing agent for the Mortgage Loans and Contract Obligations will be deemed expenses of the participants in the Trust, deductible under Code § 162 or Code § 212 by cash-basis participants in the periods in which such payments are made to the servicing agent, and by accrual-basis participants when all rights to such payments have accrued.

I. A real estate investment trust that purchases a Certificate will be considered as owning "real estate assets" within the meaning of Code § 856(c)(5)(A) to the extent of and in proportion to the number of Mortgage Loans and mortgage participation certificates comprising the Trust, and interest income earned on the Certificate and derived from the Mortgage Loans or mortgage participation certificates will be considered "interest on obligations secured by mortgages on real property or on interests in real property" within the meaning of Code §

J. A real estate investment trust that purchases a Certificate will be considered as owning "Government securities" within the meaning of Code § 856(c)(5)(A) to the extent of and in proportion to the number of Treasury or other governmental obligations comprising the Trust.

K. A Certificate owned by a domestic building and loan association within the meaning of Code § 7701(a)(19) will be considered as representing "qualifying real property loans" within the meaning of Code §§ 593(d) and 7701(a)(19)(C)(v) to the extent of and in proportion to the number of Mortgage Loans or mortgage participation certificates comprising the Trust.

L. A Certificate owned by a domestic building and loan association within the meaning of Code § 7701(a)(19) will be considered as representing "obligations of the United States or of a State or political subdivision thereof, [or] stock or obligations of a corporation which is an instrumentality of the United States or a State or political subdivision thereof" within the meaning of Code § 7701(a)(19)(C)(iii) to the extent of and in proportion to the number of Treasury or other governmental obligations comprising the Trust.

M. The qualification of an employee's pension or profit-sharing trust under Code § 401 and its exemption under Code § 501(a) will not be adversely affected by purchase of Certificates, provided that the purchase meets the applicable investment requisites set forth in Revenue Ruling 69-494, 1969-2 C.B. 88.

Statement of Authorities in Support of Rulings Requested

A pool conforming to the above description has been designed to fall within the definition of "trust" as contained in § 301.7701-4 of the Regulations on Procedure and Administration (the "Treasury Regulations"). Section 301.7701-4(a)(2) of the Treasury Regulations provides that the determination of whether a trust is to be treated as an association taxable as a corporation rather than as a trust depends on whether there are (i) associates and (ii) an objective to carry on a business and divide the gains therefrom.

Under Treasury Regulation §301.7701-4(a), an arrangement will be treated as a trust for Federal income tax purposes if it can be shown that the purpose of the arrangement is to vest in trustees responsibility for the protection and conservation of property for beneficiaries who cannot share in the discharge of this responsibility and, therefore, are not associates in a joint enterprise for the conduct of business for profit.

Section 301.7701-4(c) of the Treasury Regulations provides that a fixed investment trust is classified as an association if there is power under the trust agreement to vary the investment of the certificateholders. A power to vary the investment of certificate holders, within the meaning of § 301.7701-4(c), is one whereby the trustee, or some other person, has some kind of managerial power over the trusteed funds that enables him to take advantage of variations in the market to improve the investment of all trust beneficiaries. *See Commissioner* v. *North American Bond Trust,* 122 F.2d 545, 546 (2d. Cir. 1941), *cert. denied,* 314 U.S. 701 (1942).

In Revenue Ruling 61-175, 1961-2, C.B. 128, where the investment portfolio could not be varied, the IRS ruled that a The same result was reached in Revenue Ruling 70-544, *supra* (involving GNMA-guaranteed "straight pass-through" mortgage-backed certificates), Revenue Ruling 70-545, *supra* (involving GNMA "fully-modified pass-through" mortgage-backed certificates), Revenue Ruling 71-399, 1971-2 C.B. 433 (involving mortgage-backed certificates the payment of principal and interest on which was guaranteed by the Federal Home Loan Mortgage Corporation [FHLMC]), and Revenue Ruling 77-349, 1977-2 C.B. 7 (including privately-insured mortgage-backed certificates). These rulings have been amplified and reaffirmed. *See* Revenue Ruling 72-376, 1972-2 C.B. 647; Revenue Ruling 74-169, 1974-1 C.B. 147; Revenue Ruling 74-221, 1974-1 C.B. 365; Revenue Ruling 74-300, 1974-1 C.B. 169; Revenue Ruling 80-96, 1980-1 C.B. 317; Revenue Ruling 81-203, 1981-2 C.B. 137.

Numerous private rulings have also been issued, holding that similar arrangements involving mortgage-backed pass-through certificates were to be treated as creating grantor trusts. *See* Letter Rulings 8208102, 8007015, 8004118, 7952168, 7948112, 7948086, 7945020, 7935075, 7852090, 7826008, and 7750018.

The transaction described above is closely analogous to the series of rulings involving or related to "pass-through certificates," in which the absence of any power to vary the investments in the fund was sufficient to result in classification of the pool as a trust.

Both the IRS and the courts have grappled, over time, with the meaning of the concept, "varying the trust investment". In 1941, the Second Circuit Court of Appeals addressed the issue in the companion cases of *Commissioner* v. *Chase National Bank of City of New York,* 122 F.2d 540 (2d Cir. 1941) and *Commissioner* v. *North American Bond* trusts, to a depositor responsible for creating trust investment units, which consisted of sixteen shares of stock issued by each of 30 corporations named in the agreement (in *Chase National Bank),* or of a portfolio of bonds with a face amount of $1000 each in (*North American Bond Trust).* Both agreements provided that the depositor would continually establish new investment units to be added to the corpus of the trust (certificates of interest in such new units being sold to investors under the same terms and in the same proportion as had the prior units been sold). In *Chase National Bank,* in making up new units, the depositor was confined to the stock of only those corporations whose stock was contained in existing units; in *North American Bond Trust,* the depositor, although confined to bonds from sources specified in the trust agreement, could choose obligations issued by entities other than those represented in the original portfolio.

In *Chase National Bank,* the court, after examining the powers and duties of both the trustee and depositor, sustained the findings of the Board of Tax Appeals that there existed no exercise by the trustee, the depositor, or both combined, of any powers beyond those that were necessary incidents to the preservation of trust property, the collection of income therefrom, and its distributions to holders of trust shares. The court reasoned that whatever went into the trusts stayed there until some disposition of it was made under the agreement to maintain the sound investment character of the property held, and thus affirmed the Board of Tax Appeals' decision that the trusts would be classified as trusts rather than as associations for Federal income tax purposes.

In *North American Bond Trust,* however, the same panel of the court found that the depositor has power, in effect, to change the investment of certificate-

another unit, the 'Depositor' was not confined to the same bonds that he had selected for the first, and so on, for as long as new money came in. Even so, possibly, the scheme might have been a 'trust' if each unit had remained watertight, so to speak; that is, if a certificate holder had been confined to the securities of his own unit. But that was not the case; on the contrary, the bonds of all units constituted a single pool in which each certificate holder shared, according to his proportion of all the certificates issued. Thus, every time the 'Depositor' made up a new unit, composed of different bonds from the preceding units, he reduced the interest of existing certificate holders in the bonds which they had up till then owned, and substituted, in the place of the interest so taken, an interest in new bonds. That meant that the 'Depositor' had power, though a limited power, to vary the existing investments of all certificate holders at will, for as long as any new money came, and in this way, to take advantage of market variations to improve the investments even of the first investors.

North American Bond Trust, supra, at 546 (Emphasis supplied).

In *Commissioner* v. *City National Bank and Trust Co.*, 142 F.2d 771, 775 (10th Cir. 1944), the Tenth Circuit Court of Appeals summarized the basic difference between the two Second Circuit cases:

> *The emphasis by the majority of the court in the Chase National Bank case was on the fact that the trustee had no discretion to vary the investment by eliminating stock for the purpose of realizing a gain or profit on reinvestments, while in Commissioner v. North American Bond Trust the trustee had such discretion.*

In *Pennsylvania Company for Insurance on Lives and Granting Annuities* v. *United States*, 139 F.2d 869, 874 (3d Cir. 1943), *cert. denied,* 321 U.S. 788 (1944), the Third Circuit Court of Appeals held periodic payment plan trusts to be taxable associations, emphasizing that, though never exercised, a right existed under the trust agreements for the distributor to substitute for purchase by the trustee securities other than the trust shares specifically designated for investment in the trust agreements:

> *Here the power of substitution is primarily in the distributor, which is the vendor of the shares to be made subject to the trust. And that power may be exercised by the distributor if it finds it 'impracticable', when the trustee has funds for investment, to provide the specified trust shares for purchase. Moreover, if the distributor fails to provide the trustee with shares for purchase, then the trustee may exercise the power of substitution and, in so doing, has the right to be influenced in its choice of securities by the price at which the specified trust shares are then procurable. It is indeed difficult to perceive for what reason, other than the obvious business reason involved, this power of substitution was reposed.*

Pennsylvania Company for Insurance on Lives, supra, at 874. Because of the discretion inherent in such power, the court held that the trust device was adopted and had been used to facilitate an arrangement other than one whose primary achievement was the security and preservation of property ordinarily afforded by a trust. As such, the arrangement was taxable as an association.

In summary, these pivotal cases establish the concept that fixed investment trusts, under which, for the purpose of conserving the trust property, sales to eliminate unsafe investments but has no power to direct new investments to take advantage of fluctuations in the market, are classified as trusts rather than as associations for Federal income tax purposes. Investment trusts, under which anyone has a power under the trust agreement to vary the investment of the trust certificate holders, are taxable as associations.

The IRS has addressed the concept of "varying the trust investment" in a number of revenue rulings.

In Revenue Ruling 75-192, 1975-2 C.B. 384, a trust agreement accompanying a pool of individual mortgage loans provided that the trustee was to make quarterly distributions of all principal and interest payments received. During the period between quarterly distribution dates, the trustee was required to invest cash on hand in short-term obligations of (or guaranteed by) the United States, on any agency or instrumentality thereof, or in certificates of deposit in any bank or trust company having a minimum stated surplus and capital. The trustee was permitted to invest in obligations maturing prior to the next distribution date and was required to hold such obligations until maturity. The IRS ruled that the requirements pursuant to which the trustee was allowed to invest mortgage proceeds limited the trustee to a fixed return similar to that earned on a bank account, and eliminated any opportunity by which the trustee could seek to gain for the certificateholders a profit from market fluctuations. Accordingly, the IRS held that neither the trustee nor the depositor of the mortgages has the power under the trust agreement to vary the trust investment after the initial purchase of the mortgages and, therefore, the arrangement in question was classified as a trust for Feder income tax purposes and not as an association taxable as a corporation.

In Revenue Ruling 78-149, 1978-2 C.B. 448, the trust agreement establishing a fixed investment trust whose corpus consisted of a portfolio of municipal obligations permitted the trustee limited reinvestment of certain funds under specified limited conditions during the first 20 years of the trust's existence. Reinvestment was permitted only of funds derived from the redemption by the issuing municipality of municipal obligations prior to their maturity, and was limited to municipal obligations maturing no later than the last maturity date of the municipal obligations originally deposited in the trust. The trustee, however, was not otherwise limited in the purchase of new obligations. In determining the new obligations to be purchased, the trustee presumably would have an implicit obligation to obtain for the investors the best price and yield then available (consistent with the quality of the other obligations in the trust). Any resulting gains or losses in yield would flow through to the investor in the trust. The IRS held that the power in the trust agreement, even though limited to reinvestment of the proceeds of redemption over which the trust had no control, was a managerial power that enabled the trust to take advantage of variations in the market to improve the investment of the investors. As such, the IRS found such power to be one allowing for a varying of the investment of the Certificateholders within the meaning of § 301.7701-4(c) of the Treasury Regulations. Accordingly, the trust was classified as an association taxable as a corporation for Federal income tax purposes.

In many respects, the investment of. principal payments pursuant to the terms of the Contract involves even less discretion than the power to invest payments as outlined in Revenue Ruling 75-192. Under that power, the trustee's ability (or lack thereof) to obtain the best

the Obligor can in any way secure for Certificateholders any benefit from market conditions, or alter the nature and terms of the investments in the Trust as established on the date of the Trust's formation. Neither party to the Contract exercises any discretion on behalf of, or is subject to any fiduciary responsibility to, Certificateholders with respect to the Contract. The only duty of the Obligor is to perform the terms of the Contract by providing the specified Contact Obligations at the specified price and interest rate. The only duty of the Trustee is to enforce the terms of the Contract. The operation and requirements of the Contract work automatically. Whether market conditions at the time the Contract is triggered render the Contract's performance beneficial or detrimental to Certificateholders, measured at the time of performance, is beyond the control of either party; the Contract is in place and in force from the date of the formation of the Trust, operates regardless of market conditions, and is therefore, in essence, a fixed investment, as is true of the other Trust assets. The Contract in the instant transaction also differs significantly from the powers granted the trustee in the arrangement described in Revenue Ruling 78-149, *supra.* Unlike the power, which, although restricted in some respects, allowed the trustee or depositor to select obligations producing *any* yield, the interest rate borne by the obligations to be provided under the Contract is specified, and is equal to the Pass-Through Rate applicable to the Mortgage Loans originally in the Pool or such lower rate as shall be fixed in the Contract. As such, no party in the instant transaction is vested with a managerial power that enables him, on behalf of Certificateholders, to attempt to take advantage of variations in the market and thereby attempt to improve the investment of the Certificateholders.

benefit inuring to the Obligor or servicer, as provided under the Contract), thus distinguishing the arrangement under consideration from that described in both *North American Bond Trust, supra,* and *The Pennsylvania Company for Insurances on Lives and Granting Annuities, supra.* The principal amount, the price to the Trustee, and the interest rate on the Contract Obligations are fixed under the Contract, and the operation of the Contract is automatic, thereby providing Certificateholders no gain or loss from any choice of discretion exercised by the Obligor.

The terms and operations of the investment Contract may be analogized to the guaranty agreements, insurance policies, and advance mechanisms which are triggered by a delinquency or default in payment by a mortgagor. Such arrangements provide a protection to Certificateholders of the return on their investment and steady cash flow against loss or delay resulting from such delinquencies or defaults. The Contract operates in a similar fashion to protect for a fixed period of time a return Certificateholders contracted for at the time they purchased their Certificates. The IRS ruled that the presence of guarantees, insurance arrangements, or advance mechanisms in a trust fund does not serve to alter the investment of certificateholders or render the trust taxable as an association pursuant to the Treasury Regulations. *See* Revenue Rulings 70-544, *supra,* 70-545, *supra,* and 71-399, *supra.* The Contract, as do the insurance or guarantee agreements and advance mechanisms, operates automatically, and serves to protect the investment of the Certificateholders as originally established.

A. Issues Pending

To the best of our knowledge, none of the issues herein requested for ruling, or any similar issue, has been ruled on by the Internal Revenue Service to HUD or GNMA or any of its predecessors. Requested Rulings B through M are identical or similar to rulings previously granted to others and/or published by the IRS. We would be pleased to submit further description or analysis of these rulings if such description or analysis would be helpful or desirable.

B. Contrary Authorities

To the best of our knowledge and belief, no legislative provisions, tax treaties, court decisions, regulations, revenue rulings, or revenue procedures set forth a position contrary to that set forth on behalf of HUD and GNMA.

C. Power of Attorney

Powers of attorney on Form 2848 naming the undersigned Esq. of are being filed herewith in connection with this ruling request. Please send any rulings issued pursuant to this request to

(Title), Department of Housing and Urban Development, Washington, D.C. 20410, and to [Title], Government National Mortgage Association, Washington, D.C. 20410. Please send a copy of any rulings issued in connection herewith to the undersigned at the above address. If additional information is required in connection with this ruling request, please call at

D. Oral Hearing Requested

A conference with representatives of the respect to any of the matters for which these rulings have been requested. Notice of the time and place of any such hearing should be sent to

Respectfully submitted,

[Attorney submitted request
for HUD and GNMA]

Declaration

Under penalties of perjury, I declare that I have examined this request, including accompanying documents, and to the best of my knowledge and belief, the facts presented in support of the ruling request are true, correct, and complete.

By:
[Name]
[Title]
Department of Housing and
Urban Development

By:
[Name]
[Title]
Government National
Mortgage Association

98th Congress 1st Session

S. 1821

To amend the Securities Act of 1933 and the Securities Exchange Act of 1934 with respect to the treatment of mortgage backed securities, to increase the authority of the Federal Home Loan Mortgage Corporation, and for other purposes.

In The Senate of the United States

August 4 (legislative day, August 1), 1983, Mr. Garn (for himself and Mr. Tower) introduced the following bill,

To amend the Securities Act of 1933 and the Securities Exchange Act of 1934 with respect to the treatment of mortgage backed securities, to increase the authority of the Federal Home Loan Mortgage Corporation, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that this Act may be cited as the "Secondary Mortgage Market Enhancement Act of 1983".

Title I – Securities Laws Amendments

REGISTRATION EXEMPTION

Sec. 101. Section 4(5) of the Securities Act of 1933 is amended to read as follows:

"(5) transactions involving offers and sales of one or more promissory notes-

"(A) which are directly secured by a first lien (or a second lien where the proceeds of the note were applied to the purchase of the security property or to improvements thereon) on-

"(i) a single parcel of real estate (including stock allocated to a dwelling unit in a residential cooperative housing corporation) upon which is located a dwelling or other residential or commercial structure, or

"(ii) a residential manufactured home, as defined in section 501(e) of the Depository Institutions Deregulation and Monetary Control Act of 1980, and participation interests in such notes or mortgage related payment bonds secured by such notes or participation interests; and

"(B) where (i) the sales price for such note, participation interest, or mortgage related payment bond is not less than $250,000 or such note, participation interest, or mortgage related payment bond represents a participation interes or denomination which, if sold on the pays cash upon the earlier of (I) the date of delivery of such note, participation interest, or mortgage related payment bond, or (II) 120 days after the date upon which the purchaser committed to make such purchase, and (iii) such note or notes were originated by a savings and loan association, savings bank, commercial bank, credit union, insurance company, or similar institution which is supervised and examined by a Federal or State authority or were originated by a mortgage approved by the Secretary of Housing and Urban Development pursuant to sections 203 and 211 of the National Housing Act.

For the purpose of subparagraph (A), a mortgage related payment bond means an obligation (which may be with or without recourse to the issuer thereof) which, by its terms, provides for payments of principal in relation to payments, or reasonable projections of payments, on notes meeting the above requirements or participation interests therein which are pledged as security for such obligation and which are rated in one of the four highest rating categories by at least one nationally recognized statistical rating organization."

EXTENSION OF CREDIT

Sec. 102 Section 11(d) of the Securities Exchange Act of 1934 is amended by inserting "or securities described in section 4(5) of the Securities Act of 1933" after "exempted security" each place it appears.

NET CAPITAL REQUIREMENT

Sec. 103 Section 15 (c)(3) of the Securities Exchange Act of 1934 is amended

tion 4(5) of the Securities Act of 1933 which are rated in one of the four highest rating categories by at least one nationally recognized statistical rating organization as the treatment accorded in the case of securities described in section 3(a)(2) of such Act."

INVESTMENT BY DEPOSITORY INSTITUTIONS

Sec. 104. (a) Section 5(c)(1) of the Home Owner's Loan Act of 1933 (12 (U.S.C. 1464(c)(1)) is amended by adding at the end thereof the following:

(S) Mortgage Backed Securities. - investments in securities described in section 4(5) of the Securities Act of 1933, subject to such regulations as the Board may prescribe."

(b) Section 107 of the Federal Credit Union Act (12 U.S.C. 1757) is amended -

(1) by redesigning paragraph (15) as paragraph (16); and

(2) by inserting after paragraph (14) the following: "(15) to invest in securities described in section 4(5) of the Securities Act of 1933, subject to such regulations as the Board may prescribe."

SECURITIES ACTIVITIES OF NATIONAL BANKS

Sec. 105. Section 5136 of the Revised Statutes (12 U.S.C. 24) is amended by adding at the end of paragraph Seven the following: "The limitations and restrictions contained in this paragraph as to an association dealing in, underwriting, and purchasing for its own account investment securities shall not apply to securities described in section 4(5) of the Securities Act of 1933, subject to such limitations as the Comptroller of the Currency may prescribe."

under the laws of the United States or any State shall be authorized to purchase, hold, and invest in securities which are described in section 4(5) of the Securities Act of 1933, without regard to the requirement of subparagraph (b)(i) thereof, but which are registered under section 6 of such Act, to the same extent that such person, trust, or organization is authorized under any applicable law to purchase, hold, or invest in obligations issued by or guaranteed as to principal and interest by the United States or any agency or instrumentality thereof. Where State law limits the purchase, holding, or investment in obligations issued by the United States by such a person, trust, or organization, such securities described in section 4(5) of the Securities Act of 1933 shall be considered to be obligations issued by the United States for purposes of the limitation.

(b) The provisions of subsection (a) shall not apply with respect to a particular person, trust, or organization or class thereof in any State which, prior to the expiration of 2 years after the date of enactment of this Act, enacts a statute which specifically refers to this section and either prohibits or provides for a more limited authority to purchase, hold, or invest in such securities by such person, trust, or organization or class thereof than is provided in subsection (a). The enactment by any State of any statute of the type described in the preceding sentence shall not affect the validity of any contractual commitment to purchase, hold, or invest which was made prior thereto.

Commission shall, by rule or regulation, provide for the registration pursuant to section 6 of the Securities Act of 1933 of securities which are to be offered on a delayed or continuing basis in the future, and which meet all the requirements of section 4(5) of the Securities Act of 1933, except for the requirement of subparagraph (B)(i).

Title II - Federal Home Loan Mortgage Corporation and Federal National Mortgage Association Amendments

FEDERAL HOME LOAN MORTGAGE CORPORATION PREFERRED STOCK

Sec. 201. Section 306(f) of the Federal Home Loan Mortgage Corporation Act is amended by adding at the end thereof the following: "Such preferred stock may have such rights as are permitted by the rules of the New York Stock Exchange in the case of securities listed on such Exchange."

FEDERAL NATIONAL MORTGAGE ASSOCIATION PREFERRED STOCK

Sec. 202. (a) The first sentence of section 303(a) of the National Housing Act is amended to read as follows: "The corporation shall have common stock, without par value, which shall be vested with voting rights, each share being entitled to one vote with rights of cumulative voting at all elections of directors."

(b) Section 303 of such Act is amended by adding at the end thereof the following:

"(h) Any preferred stock of the corporation may have such rights as are permitted by the rules of the New York amended by striking out the word "common" in the first sentence.

FEDERAL HOME LOAN MORTGAGE CORPORATION PURCHASE OF JUNIOR LIENS

Sec. 203. The first sentence of section 302(h) of the Federal Home Loan Mortgage Corporation Act is amended by striking out "status as a first lien" and inserting in lieu thereof "priority of lien status".

FEDERAL HOME LOAN MORTGAGE CORPORATION MANUFACTURED HOUSING LOANS

Sec. 204. Section 302(h) of the Federal Home Loan Mortgage Corporation Act is amended by adding at the end thereof the following: "The term 'residential mortgage' also includes loans or advances or credit secured by mortgages or other liens against manufactured homes whether the security property is real, personal, or mixed."

FEDERAL HOME LOAN MORTGAGE CORPORATION AUTHORITY TO PURCHASE STATE AGENCY INSURED MORTGAGES

Sec. 205. Section 320(i) of the Federal Home Loan Mortgage Corporation Act is amended by striking out "a State or an agency or instrumentality of either" and inserting in lieu thereof "any of its agencies or instrumentalities".

FEDERAL HOME LOAN MORTGAGE CORPORATION GUARANTEE OF MORTGAGE—BACKED SECURITIES ISSUED BY OTHERS

Sec. 206. Section 306 of the Federal Home Loan Mortgage Corporation Act is tee mortgage-backed securities other than mortgage-backed securities issue by the Corporation."

98th Congress 1st Session

S.1822

To amend the Internal Revenue Code o 1954 to encourage investments in mortgage-backed securities through trusts for investments in mortgages, an for other purposes.

In The Senate of the United States

August 4 (legislative day, August 1), 1983

Mr. Garn (for himself and Mr. Tower) introduced the following bill, which was read twice and referred to the Committee on Finance:

A BILL

To amend the Internal Revenue Code o 1954 to encourage investments in mortgage-backed securities through trusts for investments in mortgages, an for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SPECIAL RULES FOR TAXATION OF TRUSTS FOR INVESTMENTS IN MORTGAGES.

(a) In General. - Subchapter M of Ch ter 1 of the Internal Revenue Code 1954 (relating to taxation of regulat investment companies and real est

MENTS IN MORTGAGES

"Sec. 860A. TIM's defined.
"Sec. 860B. Taxation of TIM's.
"Sec. 860C. Taxation of shareholders.
"Sec. 860D. Special rules for contributions of property to TIM's. "Sec. 860E. Qualified obligations.

"Sec. 860A. TIM's Defined.

"(a) In General. - For purposes of this title, the term 'TIM' means a corporation, trust, or association–

"(1) which is managed by 1 or more trustees or directors,

"(2) the beneficial ownership of which is evidenced by registered transferable shares, or by transferable certificates of beneficial interest,

"(3) which (but for the provisions of this part) would be taxable as a domestic corporation,

"(4) which is not -

"(A) a financial institution to which section 585, 586, or 593 applies, or

"(B) an insurance company to which subchapter L applies, and

"(5) which meets the requirements of subsections (b), (c), (d), and (e).

"(b) Investment Requirements. - A TIM meets the requirements of this subsection if–

"(1) Gross Income Test.- At least 95 percent of the TIM's gross income (excluding gross income from prohibited transactions) is derived from–

"(A) qualified obligations, and

"(B) cash, cash items (including receivables), and Government securities.

"(2) Gross Income Test From Qualified Obligations.- At least 75 percent of the TIM's gross income (excluding gross income from prohibited transactions) is derived from qualified obligations.

"(3) Asset Test.-

"(A) In General.–At the close of each quarter of the taxable year, at least 85

receivables), and Government securities.

"(B) Certain Failures To Meet Asset Test May Be Corrected.- Under regulations prescribed by the Secretary, rules similar to the rules of the two sentences following section 856(c)(5) shall apply.

"(4) Restriction on Gross Income from Certain Types of Assets.- Not more than 20 percent of the TIM's gross income may be derived from the disposition of–

"(A) stocks or securities held for less than 1 year (other than a qualified short-term investment within the meaning of section 4982(d)), and

"(B) property in a transaction which is a prohibited transaction.

"(c) Active Business Income Not Permitted.-

"(1) In General.- A TIM meets the requirements of this subsection if such trust has no income from the active conduct of a trade or business.

"(2) Treatment of Fees and Points Which Are Not Fees for Services.- For purposes of paragraph (1), income received from commitment fees and points in connection with any qualified obligation shall not be treated as income from the active conduct of a trade or business unless such income is for services performed by the TIM.

"(d) Election; Termination of Election.-

"(1) In General. - A TIM meets the requirements of this subsection with respect to any taxable year if -

"(A) within 75 days of the date on which the TIM is incorporated or formed, the TIM elected to have this part apply, and

"(B) such election (or a subsequent election under paragraph (4)) remains in effect through the close of such taxable year.

"(2) Failure to Qualify. - An election under paragraph (1) made by a corporation, trust, or association is not a TIM to which the provisions of this part apply for the taxable year with respect to which the election is made, or for any succeeding taxable years.

"(3) Revocation.- An election under paragraph (1) made by a corporation, trust, or association may be revoked by it for any taxable year after the first taxable year for which the election is effective. A revocation under this paragraph shall be effective for the taxable year in which made and for all succeeding taxable years. Such revocation must be made on or before the 90th day after the 1st day of the first taxable year for which the revocation is to be effective. Such revocation shall be made in such manner as the Secretary shall prescribe by regulations.

"(4) Election After Termination or Revocation. - Except as provided in paragraph (5), if a corporation, trust, or association has made an election under paragraph (1) and such election has been terminated or revoked under paragraph (2) or paragraph (3), such corporation, trust, or association (and any successor corporation, trust, or association) shall not be eligible to make an election under paragraph (1) for any taxable year prior to the fifth taxable year which begins after the first taxable year for which such termination or revocation is effective.

"(5) Exception. - If the election of a corporation, trust, or association has been terminated under paragraph (2), paragraph (4) shall not apply if -

"(A) the corporation, trust, or association does not willfully fail to file within the time prescribed by law an income tax return for the taxable year with respect to which the termination of the election under paragraph (1) occurs;

"(B) the inclusion of any incorrect information in the return referred to in subparagraph (A) is not due to fraud with intent to evade tax; and

Secretary that its failure to qualify as a TIM to which the provisions of this part apply is due to reasonable cause and not due to willful neglect.

"(e) Classes of Stock. -

"(1) In General. - Except as provided in paragraph (2), a TIM meets the requirements of this subsection only if such trust has only 1 class of stock or other equity interest.

"(2) Authority for More than 1 Class of Equity Interest. - A TIM may have more than 1 class of stock or other equity interest if at all times -

"(A) the debt of such TIM is 10 percent or less of the aggregate face amount of the assets of such trust, and

"(B) the par value of such stock or other equity interest equals the aggregate of qualified obligations held by such TIM.

"(f) Special Rules for Application of This Section. -

"(1) Certain Tests Not To Apply During Phase-In Period or For Complete Liquidation. - Paragraphs (2) and (4) of subsection (b) shall not apply -

"(A) to any taxable year which includes any portion of the 18-month period beginning on the date on which a TIM is incorporated or formed, or

"(B) under regulations prescribed by the Secretary, during the 6-month period beginning on the date of the adoption of a plan of complete liquidation of such TIM, but only to the extent necessary to carry out such liquidation.

"(2) Qualified Obligations Held As Inventory or For Sale. - Gross income from the sale of any qualified obligation which, in the hands of the trust, is property described in section 1221(1) shall not be taken into account under subsection (b)(2).

"(g) ... Mortgage Association and the Federal Home Loan Mortgage Corporation are ineligible to be trustees, directors, or shareholders of a TIM.

"Sec. 860B. Taxation of TIM's.

"(a) Trusts Not Taxable. - A TIM is exempt from taxation under this subtitle.

"(b) Accounting Method. - For purposes of determining taxable income for any taxable year, a TIM shall -

"(1) use the cash method of accounting, and

"(2) have as its accounting period the calendar year.

"Sec. 860C. Taxation of Shareholders.

"(a) In General. - Except as provided in this part, any shareholder of a TIM shall, for purposes of this title, be treated in the same manner as if -

"(1) the TIM was a partnership, and

"(2) the shareholder was a partner.

"(b) Treatment of Dispositions of Qualified Obligations. -

"(1) Actual Distributions. - If the proceeds from the disposition by a TIM of any qualified obligation are distributed to any shareholder, that portion of such distribution which is properly allocable to the principal amount of such obligation shall be treated-

"(A) as if redemption of the shareholder's shares or certificate, except that -

"(B) the character of the gain from such redemption shall be the same as the character of such gain would have been if such gain had been taxable to the TIM.

"(2) Reinvestment of Proceeds.- If the proceeds from the disposition of any qualified obligation by a TIM are used to acquire any other qualified obligation-

"(A) each shareholder shall be treated as having received a distribution of the shareholder's pro rata share of such proceeds (and such distribution shall be treated as an actual distribution), and

the TIM in exchange for shares or certificates having a par value equal to the face amount of the other qualified obligations so acquired.

"(c) Special Rules for 20-Percent or more Shareholders.-

"(1) In General. - In the case of any -

"(A) 20-percent shareholder of a TIM who is a dealer in qualified obligations, or

"(B) financial institution to which section 585, 586, or 593 applies,

any gain from the disposition of any qualified obligation which is allocated to such shareholder shall be treated as ordinary income.

"(2) 20-percent Shareholder Defined.-

"(A) In General. - For purposes of this subsection, the term '20-percent shareholder' means any shareholder of a TIM whose equity and debt interest in a TIM at any time equals 20 percent or more of the total equity and debt interests in such TIM at such time.

"(B) Related Persons' Interests Taken Into Account. - In determining the equity and debt interest of any shareholder under subparagraph (A), there shall be taken into account the equity and debt interests of any person related (within the meaning of section 103(b)(6)(C)) to such person.

"d) Shareholder Defined. - For purposes of this section, the term 'shareholder' means any beneficial owner of a TIM.

"Sec. 860D. Special Rules for Contributions of Qualified First or Second Mortgages to TIM's.

"(a) Basis of TIM in Qualified First or Second Mortgages. - A TIM's basis in any qualified first or second mortgage received by the TIM in exchange for an at the time of the transfer.

"(b) Gain or Loss Recognized by Shareholders.

"(1) In General. - In the case of an exchange described in subsection (a), gain or loss shall be recognized by the person transferring any qualified mortgage to the TIM to the extent such person's basis in such mortgage is greater (or less) than the fair market value of such mortgage.

"(2) Time for Recognition - Any gain or loss described in paragraph (1) shall be recognized ratably over the remaining term of the qualified first or second mortgage.

"(3) Ordinary Losses. - If any loss recognized by any person under this subsection is treated as an ordinary loss, any gain from the sale or exchange of such person's equity interest in such TIM shall be treated as ordinary income to the extent of such loss.

"Sec. 860E. Qualified Obligations.

"For purposes of this part -

"(a) In General. - The term 'qualified obligation' means any-

"(1) qualified first or second mortgage,

"(2) qualified participation,

"(3) cash-flow, mortgage-backed bond which is secured by any qualified first and second mortgage,

"(4) equity interest in a TIM,

"(5) qualified repurchase obligation, or

"(6) qualified income investment.

"(b) Qualified First or Second Mortgages. -

"(1) In General. - The term 'qualified first or second mortgage' means a first or second mortgage (whether or not insured) which -

"(A) is secured by a single-family residence which is (or can reasonably

"(B) is used (or can reasonably be expected to be used) to acquire, or to make a home and improvement in connection with, such residence.

"(2) Single-Family Residence; Cooperatives. - Under regulations prescribed by the Secretary, rules similar to the rules of paragraphs (9) and (10) of section 103A(1) shall apply.

"(3) Mortgage May Not Exceed Value of Residence. - The principal amount of any qualified first or second mortgage on any residence, when aded to the aggregate outstanding principal amount of all previous such mortgages on such residence, shall not, on the date such mortgage is issued, exceed the fair market value of such residence on such date.

"(4) Construction Loans Not Permitted. - The term 'qualified first or second mortgage' shall not include any construction loan.

"(5) Original Issue Discount. - Except to the extent provided in regulations prescribed by the Secretary, the term 'qualified first or second mortgage' does not include any mortgage originated with an original issue discount.

"(c) Qualified Participation. - The term 'qualified participation' means any participation in any mortgage or pool of mortgages but only if -

"(1) such mortgages would be qualified first or second mortgages if held directly by the TIM, and

"(2) the mortgagees of such mortgages remain the primary obligors.

"(d) Qualified Repurchase Obligations. - The term 'qualified repurchase obligation' means any qualified first or second mortgage which is subject to a repurchase agreement under which -

"(1) any amount payable to the TIM does not exceed the payments due on the mortgage subject to the agreement,

"(2) such TIM purchases such mortgage for not more than the fair market value of such mortgage, and

entered into.

"(e) Qualified Income Investments.-

"(1) In General. - The term 'qualified income investment' means any security, letter of credit, certificate of deposit, surety bond, or other similar instrument or device which -

"(A) is acquired during the 18-month period beginning on the date the TIM is incorporated or formed, and

"(B) is acquired -

"(i) to provide cash to meet fixed obligations of such TIM which cannot be met from investments in other qualified obligations, or

"(ii) to provide income to the TIM to offset income which is lost by reason of the prepayment or liquidation (other than by sale by such TIM) of any qualified obligation before maturity.

"(2) Termination as Qualified Obligation. - Any qualified income investment shall not be treated as a qualified obligation after the earlier of -

"(A) the date which is 7 years after a TIM is incorporated or formed, or

"(B) in the case of such a TIM with a fixed term, the date on which the first one-third of such term has expired."

(b) Conforming Amendment. - The table of parts for subchapter M of chapter 1 of such Code is amended by adding at the end thereof the following new part:

"Part IV. Trust for investments in mortgages."

Sec. 2 Tax on Prohibited Transactions of TIM's.

(a) Imposition of Tax. - Chapter 44 of the Internal Revenue Code of 1954 (relating to excise tax on real estate investment trusts) is amended by adding at the end thereof the following new section:

"Sec. 4982. Excise Tax on Prohibited Transactions of TIM's.

"(a) Imposition of Tax. - There is hereby imposed on each prohibited transaction of a TIM a tax in an amount equal to the gain or loss allocable to such transaction.

"(b) Prohibited Transaction Defined. - For purposes of this section, the term 'prohibited transaction' means the disposition by a TIM of-

"(1) any qualified obligation held by such TIM for less than 3 years, or

"(2) any qualified obligation which is-

"(A) held by the TIM for 3 years or more, and

"(B) described in section 1221(l).

"(c) Exception From Prohibited Transactions. -

"(1) In General. - A disposition shall not be treated as a prohibited transaction if -

"(A) such disposition is in connection with the prepayment, retirement, or renegotiation of a qualified obligation,

"(B) such disposition is of -

"(i) any defective qualified obligation,

"(ii) foreclosure property, or

"(iii) qualified short-term investment, or

"(C) such disposition is in connection with the involuntary liquidation or dissolution of a TIM.

"(2) Certain Transactions not Treated As Prohibited Transactions. - Paragraph (2) of subsection (b) shall not apply to any qualified obligation described in such paragraph for any taxable year if -

"(A) not more than 20 percent of the aggregate face amount of all such qualified obligations are disposed of during such taxable year,

"(B) not more than 50 percent of the aggregate face amount of all such qualified obligations are disposed of during taxable year, but not more than 5 obligations are disposed of during such taxable year, or

"(C) the disposition is -

"(i) pursuant to a bulk sale as part of a plan of complete liquidation, and

"(ii) by a TIM which has been a TIM for at least 3 taxable years before such disposition.

"(d) Qualified Short-Term Investments.-

"(1) In General. - For purposes of this section, the term 'qualified short-term investment' means any qualified obligation which -

"(A) is designated by a TIM as a qualified short-term investment on the date such obligation is acquired,

"(B) is held by a TIM for less than 180 days (or if longer than 180 days, is held to maturity), and

"(C) the proceeds of which are -

"(i) used to acquire other qualified obligations, or

"(ii) distributed by the TIM to its shareholders.

"(2) Special Rule for Reinvestment During Phase-In Period. - Notwithstanding paragraph (1), during the 18-month period beginning on the date a TIM is incorporated or formed, proceeds from the disposition of a qualified short-term investment may be invested in other qualified short-term investment.

"(e) Definitions. - For purposes of this section -

"(1) TIM; Qualified Obligations. - The terms 'TIM' and 'qualified obligation' have the same meanings as when used in part IV of subchapter M of chaper 1.

"(2) Foreclosure Property. - The term 'foreclosure property' has the same meaning given such term by section (856(e)) without regard to whether such property is held by a real estate investment trust."

(b) Conforming Amendments. - The table of sections for chapter 44 of the Internal Revenue Code of 1954 is amended -

(1) by inserting "AND TIM'S" after "TRUSTS" in the heading thereof, and

(2) by adding at the end thereof the following new item:

"Sec. 4982. Excise tax on prohibited transactions of TIM's."

Programs

29 CFR Part 2550

Rules and Regulations for Fiduciary Responsibility; Trust Requirement and Definition of Plan Assets—Governmental Mortgage Pools

AGENCY: Pension and Welfare Benefit Programs Office, Labor.

ACTION: Final regulations.

SUMMARY: This document contains final regulations that: (1) Describe the assets that an employee benefit plan is considered to acquire, for purposes of the fiduciary responsibility provisions of the Employee Retirement Income Security Act of 1974 (ERISA), when it invests in certain governmental mortgage pools; and, (2) descibe the way in which the requirement of ERISA that plan assets must be held in trust is satisfied with respect to specified kinds of property. There has been considerable uncertainty regarding what constitutes "plan assets" with respect to a plan's investment in governmental mortgage pools, as well as uncertainty regarding the manner in which the trust requirement of ERISA is satisfied. The regulations will provide guidance to plan fiduciaries, participants and beneficiaries of plans, persons borrowing from plans, certain mortgage pool sponsors and other affected parties.

DATE: The regulation is effective June 17, 1982.

FOR FURTHER INFORMATION CONTACT: William A. Schmidt, Plan Benefits Security Division, Office of the Solicitor, telephone (202) 523–9592, or R. F. Nuissl, Office of Fiduciary Standards, Pension and Welfare Benefit Programs, telephone (202) 523–8369, U.S. Department of Labor, Washington, D.C. 20210.

SUPPLEMENTARY INFORMATION: On August 28, 1979, the Department of Labor (the Department) published a notice in the **Federal Register** (the 1979 proposal) (44 FR 50363) containing proposed regulations that would: (1) Describe property interests that would be regarded as assets of an employee benefit plan under ERISA, and (2)

opportunity to comment on the proposal. At the request of certain members of the public, the comment period was extended and, after the expiration of the extended period, subsequently reopened (44 FR 61618, October 26, 1979; 44 FR 74858, December 18, 1979). The comment period was later reopened again in connection with the Department's public hearing on the proposals (45 FR 7521, February 1, 1980).

The public hearing on the proposals was held in Washington, D.C., on February 27 and 28, 1980. At the conclusion of the hearing, the record in the proceeding was held open until March 28, 1980, in order to permit the filing of additional submissions. On June 6, 1980, the Department reproposed paragraph (e) of proposed § 2550.401b–1 (the 1980 proposal) (45 FR 38084) which described the assets that a plan would be considered to own by reason of its acquisition of an equity security, and additional comments were received with respect to the matters covered by the reproposal.

In response to the proposals, the Department received comments from a great number of interested parties who raised questions regarding a variety of different arrangements that might be affected by the proposed regulation defining the term "plan assets." Among the commentators were representatives of certain governmental entities and quasi-governmental entities that sponsor mortgage pools in which a plan may invest. These commentators questioned whether certain provisions of the proposed regulation should apply to a plan's investment in such a pool. Since these comments involve issues that can be addressed separately from other issues that have been raised with respect to the proposed regulation, the Department has decided, in order to eliminate uncertainty, to issue a final regulation at this time which deals with the investments referred to above. This regulation describes the assets that a plan is considered to own, for purposes

The Department also believes that most of the issues raised in connection with the proposed regulation under section 403(a) of ERISA (relating to the requirement that plan assets be held in trust) may also be resolved at this time. Accordingly, this document also includes a final regulation which describes how the trust requirement of ERISA may be satisfied in specified situations.

The Department intends to address the other issues that have been raised with respect to the proposed plan assets regulation in the near future.

The discussion below summarizes the comments that were received by the Department in connection with those aspects of the proposed regulations that are being dealt with here and describes the provisions of the final regulations.

Plan Assets Regulation—Governmental Mortgage Pools

A. *Description of Governmental Mortgage Pools.* The Department received a number of comments regarding certain investment pools consisting of mortgage notes held for the benefit of investors who acquire certificates which represent a fractional undivided beneficial interest in, or are backed by, the pooled mortgages. Some of these mortgage pools are sponsored by a government agency or a quasi-governmental organization. The commentators were concerned that, under the proposed regulation, the assets of a plan that invests in a mortgage pool might be deemed to include the underlying mortgages of the pool (and the sponsor of such a pool might, therefore, be considered to be a fiduciary with respect to investing plans) under either paragraph (a) or paragraph (e) of the proposal. Paragraph (a) of the proposal provided, as a general rule, that the assets of a plan include any property in which the plan has a "beneficial ownership interest." Paragraph (e) of the proposal provided

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[1] The regulation applies to Part 4 of Title I of ERISA and to section 4975 of the Internal Revenue Code. Section 102 of Reorganization Plan Number 4 of 1978 (43 FR 47713, October 17, 1978), effective December 31, 1978 (44 FR 1065, January 3, 1979), gives the Department authority to issue regulations

applied. Since ERISA defines the term "fiduciary" to include, among others, persons who exercise authority or control respecting the management or disposition of the assets of a plan,[3] the effect of this provision would be to cause the managers of certain entities in which a plan makes an equity investment to be subject to all of the fiduciary responsibility provisions of ERISA with respect to their dealings with the entity's assets.

Although some of the governmental mortgage pools described by the commentators involve instruments of the kind described in paragraph (b) of the proposed regulation (which stated that when a plan acquires certain interest-bearing securities that are issued by an agency or instrumentality of the United States, its assets would include the securities, but would not include any property underlying the securities), each of these governmental programs has certain different features. These features are described below.

1. *Government National Mortgage Association (GNMA) Mortgage Pools.* GNMA mortgage-backed securities are issued by a private lender, but are backed by pools of mortgages that are insured by the Department of Housing and Urban Development or guaranteed by the Veterans Administration. A holder of such securities acquires the right to receive a proportionate share of the principal and interest attributable to collections on the pooled mortgages, and, when a mortgage is liquidated as a result of prepayment or foreclosure, the security holder becomes entitled to a proportionate share of the unscheduled recovery of principal.

The issuer of GNMA guaranteed securities administers monthly payments to securities holders, and unable to make any required payments as scheduled, GNMA either advances funds to the issuer or pays security holders directly so as to assure timely payment by the fifteenth day of each month. GNMA's guarantee is backed by the full faith and credit of the United States.

Upon the issuance of GNMA guaranteed securities, GNMA becomes the owner of the pooled mortgages, including any past or future collections attributable to the mortgages. Although the issuer, for administrative convenience, remains the mortgagee of record with respect to the pooled mortgages, its interest in such mortgages is, upon the issuance of the securities, reduced to the right to receive a service fee from GNMA (derived from mortgage collections) for so long as it remains an issuer in good standing.

2. *Federal National Mortgage Association (FNMA) Mortgage Pools.* FNMA engages in certain mortgage pool operations pursuant to the Federal National Mortgage Association Charter Act (the Charter Act).[4] The FNMA mortgage pools consist of mortgage loans purchased by FNMA and assembled into separate pools. FNMA holds the mortgages in each pool in trust for the benefit of investors in the pool and issues a "guaranteed mortgage pass-through certificate" to each investor which evidences a pro-rata undivided beneficial interest in the equitable ownership of the mortgage loans comprising each separate identified pool. FNMA is obligated to distribute to certificate holders amounts representing scheduled payments of principal and interest attributable to the underlying mortgages whether or not such amounts are actually received and is also obligated to distribute the full principal amount of any foreclosed or otherwise fully liquidated mortgage loan whether or not such principal amount is actually recovered.

FNMA was originally established in 1938 as a subsidiary of a government registration requirements of the Federal securities laws as that provided for securities issued by the government of the United States, and all offerings of FNMA debt securities and FNMA guaranteed mortgage pass-through certificates must be approved by the Secretary of the Treasury. In addition, one third of the members of the FNMA's board of directors are appointed by the President of the United States.

3. *Federal Home Loan Mortgage Corporation (FHLMC) Mortgage Pools.* FHLMC issues participation certificates and guaranteed mortgage certificates which convey a beneficial ownership interest in certain underlying mortgages. FHLMC guarantees payment of interest on the mortgages underlying guaranteed mortgage certificates or participation certificates to the extent of the certificate rate and also guarantees collection of principal on the mortgages. FHLMC is a corporate instrumentality of the United States created by Congress[5] for the purpose of increasing the availability of mortgage credit for the financing of housing. The Board of Directors of FHLMC is composed of the three members of the Federal Home Loan Bank Board, whose Chairman is the Chairman of the Board of FHLMC. The members of the Federal Home Loan Bank Board are appointed by the President of the United States with the advice and consent of the Senate. The capital stock of FHLMC consists solely of non-voting common stock held by the twelve Federal Home Loan Banks.[6]

B. *Discussion of the Final Regulation Relating to Governmental Mortgage Pools.* When an employee benefit plan invests in a governmental mortgage pool of the kind described above, it acquires a certificate that represents an

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[2] The exceptions in the 1979 proposal were for securities issued by companies engaged primarily in the provision, production or sale of a product or service other than the investment of capital (operating companies) and securities that are widely held, freely transferable and registered pursuant to certain requirements of the Federal securities acts. The 1980 proposal also excluded securities issued by companies engaged directly in the management or development of real estate, and securities issued by certain venture capital companies, from the general rule.

[4] 12 U.S.C. 1716–1723h.

[5] Title III of the Emergency Home Finance Act of 1970, as amended, 12 U.S.C. 1451–1459.

[6] Legislation has recently been introduced that would, among other things, result in the conversion of the non-voting capital stock of FHLMC to voting common stock and would provide authority for distribution of voting stock to the shareholders of the various Federal Home Loan Banks. FHLMC also would have authority to sell common and preferred stock to the public, and, after a transitional period, six of the nine directors of FHLMC would be elected by the common stockholders.

"beneficial ownership" test in paragraph (a) of the proposed regulation, the underlying mortgages might be considered to be "plan assets" by reason of such an investment. However, the governmental mortgage pool investments described above involve guarantees of the plan's investment by a government agency or government-sponsored corporation. In view of these special characteristics, the Department has concluded that it would be inappropriate to consider such underlying mortgages as plan assets solely because a plan may acquire an interest in the mortgages as an incident of its investment.

Even if the mortgages underlying a governmental mortgage pool are not considered to be plan assets under a "beneficial ownership" rule, the mortgages, might be considered to be plan assets under paragraph (e) of the proposed regulation, relating to equity securities.[7] As discussed in the preambles to both the 1979 proposal and the 1980 proposal, paragraph (e) reflected the Department's concern that, unless the underlying assets of certain entities in which an employee benefit plan invests are characterized as including "plan assets", the purposes of the fiduciary responsibility provisions of ERISA might easily be defeated. However, the special characteristics of governmental mortgage pools described above indicate that a plan's investment in such an entity is not the kind of investment that might be used to avoid fiduciary responsibility.[8] GNMA guaranteed pass-through mortgage certificates are guaranteed by the

mortgage pool, the Department believes that a plan that invests in the pool will look to the guarantee, rather than to the mortgages underlying the pool, for assurance that amounts due on its investment will be paid. Although FHLMC and FNMA mortgage pool certificates are not guaranteed directly or indirectly by the United States, each corporation guarantees principal and interest on such investments and, accordingly, an investing plan will rely on the creditworthiness of the issuing corporation in making its investment decision. Since there is a significant Federal government involvement in the management of each corporation, and protections similar to those provided to holders of GNMA mortgage pool certificates are afforded to holders of certificates in mortgage pools that are sponsored by FNMA and FHLMC, the Department has concluded that plan investments in these pools should, for purposes of the regulation, be treated in the same way as investments in mortgage pools that have a "full faith and credit" guarantee.

In view of the foregoing, the Department has decided that it is appropriate to treat all governmental mortgage pool investments in the manner contemplated by paragraph (b) of the proposal (relating to obligations of the United States or an agency or instrumentality thereof). Accordingly, the final regulation provides that when a plan invests in a governmental mortgage pool, its assets include its investment, but do not, solely by reason of such investment, include any of the underlying mortgages. Thus, the sponsor or manager of a governmental mortgage pool would not be a fiduciary of a plan merely by reason of the plan's investment in the pool. The regulation specifically states that interests in FHLMC, GNMA and FNMA mortgage pools are among the investments to which the regulation's general rule applies.[9]

final regulation relating to governmental mortgage pools at this time in view of the widespread concern regarding the potential effect of the proposed regulation, if adopted, on employee benefit plan investments in such pools and the consequent need for guidance in this area. However, the Department is not prepared at this time to issue a final regulation which deals comprehensively with the definition of "plan assets" as it relates to the fiduciary responsibility provisions of ERISA. Nonetheless, the Department contemplates that the regulation being adopted here will be redesignated and incorporated in the forthcoming plan assets regulation.

Regulation Relating to the Trust Requirement

A. *General Considerations.* The comments received by the Department in connection with the proposed regulation under section 403(a) of ERISA indicated that there is uncertainty regarding the manner in which the requirement of that section that plan assets be "held in trust" may be satisfied with respect to various kinds of property. The final regulations under section 403(a) contain specific rules for those arrangements that were of most concern to the commentators. These specific rules are discussed below.

The rules in the final regulation are intended to permit trustees to hold plan assets in conventional ways, but are also intended to be consistent with the purposes underlying the trust requirement of section 403(a) of ERISA. In this respect, the Department noted in the preamble to its original proposed regulation under section 403(a) that an underlying rationale of the trust requirement is to prevent commingling of plan assets.[10] In addition, the Department believes that the trust requirement also should be interpreted in the context of the further requirement underlying the trust requirement suggest that the two primary considerations in determining whether a particular arrangement satisfies the trust requirement are: (1) The segregation of the property so as to prevent commingling of the property held in trust with property held for his own account by the person managing the property; and, (2) The trustee's retention of the exclusive authority and discretion to manage and control all of the plan's rights with respect to the property.

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[7] The exception in paragraph (e), as proposed, for securities that are widely held, freely transferable and registered under certain provisions of the Federal securities acts would not be available for interests in governmental mortgage pools because such interests are issued pursuant to an exemption from the registration requirements of the Securities Act of 1933. *See* 15 U.S.C. 77c(a)(2) (relating to securities guaranteed by the United States or an instrumentality thereof) and 12 U.S.C. 1719(b) (relating to interests in FNMA pools).

[8] Although the distinction between investments in governmental mortgage pools and those equity investments that would be subject to the general "look through" rule of paragraph (e) of the proposal is significant to the Department's decision to adopt

[9] Of course, the plan's interest in a governmental mortgage pool would itself be an asset of the plan, and would include all of the rights of a holder of such an interest under applicable law.

[10] 39 FR 44456, December 24, 1974.

When the primary considerations identified above are taken into account, it is apparent that plan trustees should have considerable flexibility under the trust requirement to determine the manner in which an asset of the plan will be held. Nonetheless, plan assets must, in any event, be held in a manner that is consistent with the general fiduciary provisions of ERISA, including the "prudence" rule of section 404(a)(1)(B).[12] In addition, a person holding property on behalf of the plan's trustee may be acting as agent for the trustee. The Department is not addressing here the question of the extent to which a plan trustee is responsible as principal for the acts of such a person.

B. *Street Name and Nominee Registration.* In footnote 14 to the preamble of the 1979 proposal, the Department suggested that, generally, the practice of registering securities in which a plan has invested in the name of a broker-dealer or its nominee (sometimes referred to as "street name" registration) [13] would violate the

customary for the securities of employee benefit plans to be held in street name and urged that the Department reconsider whether it is permissible to hold securities in this manner under section 403(a).

According to the commentators, where securities are owned by an employee benefit plan, but registered in street name, the interests of the plan are adequately protected, and a plan trustee's control over such assets is assured, even though the securities are not actually registered in the name of the trust under which the plan is maintained. In this regard, the commentators pointed out that the Securities and Exchange Commission has promulgated rules that specifically regulate the conduct of a broker-dealer with respect to its holdings of customer securities.[14]

Moreover, the commentors noted, insurance is provided (under the Securities Investor Protection Act of 1970) [15] against losses resulting from the insolvency of a broker-dealer in whose name, or in the name of whose nominee, securities of a plan are held. In addition, the commentators noted that most major broker-dealers also carry additional insurance against losses which exceed the amount covered by the Securities Investor Protection Act. The commentators also pointed out that the Federal Bankruptcy Code establishes

The commentators also pointed out that the plan trustee does not relinquish control over securities of an employee benefit plan merely because they are registered in street name. For example, the owner of stock registered in street name must be given proxy solicitations and has the right to vote the stock, and, in addition, is entitled to bring stockholder derivative actions.

The commentators also stated that street name registration may, in some respects, be advantageous to employee benefit plans. Several commentators pointed out that a plan's actual registration of securities increases the costs associated with holding and transfer of the securities. In addition, some commentators asserted that street name registration is particularly important for plans that allow a participant to direct the investment of his individual account [17] because such transactions are normally relatively small and their timing is not under the control of the plan's trustee.

According to the commentators, the use of street name registration is an important factor in the promotion of a Congressional policy favoring the establishment of a national clearance and settlement system because the ability to deposit and maintain customers' securities in a securities depository (thereby eliminating the necessity for the physical movement and delivery of stock certificates and making possible book entry transfers) is an essential component of such a national clearance and settlement system.[18] In this respect, some commentators called

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[11] The discussion in this notice refers to a single plan "trustee" for purposes of convenience. However, section 403(a) expressly contemplates that a plan may have more than one trustee, and, where a plan does have more than one trustee, such trustees are generally obligated, under section 405(b)(1)(B) of ERISA, to jointly manage and control the assets of the plan. The discussion of the trust requirement in this document also applies to a plan with two or more trustees.

[12] Whether a person holding property on behalf of a plan is a fiduciary with respect to such property would be determined under the definition of that term in section 3(21) of ERISA.

[13] Securities also are frequently held in the name of a nominee of an institutional investor (such as a bank or insurance company) and such arrangements

in Other Than the Name of the Beneficial Owner of Such Securities 1 (1976).

[14] The commentators specifically referred to Rules 8c–1, 15c–1 and 15c3–3 under the Securities Exchange Act of 1934 (17 CFR 240.8c–1, 240.15c2–1 and 240.15c3–3). Rules 8c–1 and 15c2–1 restrict the hypothecation of customers' securities by a broker-dealer; rule 15c3–3 establishes rules relating to a broker-dealer's control over securities held on behalf of a customer and also requires a broker-dealer to establish a special reserve account with a bank for the exclusive benefit of customers.

[15] *15 U.S.C. 78aaa–78lll.* The Securities Investor Protection Act of 1970 established the Securities Investor Protection Corporation, which has authority to bring actions in order to assure the protection of customers of a broker-dealer and also administers a fund from which advances may be made, subject to certain limitations, in order to satisfy a broker-dealer's obligation to its customers.

[16] 11 U.S.C. 752. Section 752 provides for the priority distribution of customer property to a *broker-dealer's customers to the* extent of their "allowed net equity claims." In general, the customer's "net equity claim" is equal to the amoun that would have been realized at the time of filing o the bankruptcy petition, upon liquidation of the customer's security position, less the amount of any claims of the broker-dealer against the customer. *See* 11 U.S.C. 741(a)(5).

[17] Section 404(c) of ERISA specifically *contemplates participant directed* individual account plans.

[18] The commentators referred specifically to Pub. L. No. 94–21 (May 9, 1975) which amended certain provisions of the Federal securities acts. Section 2 of that statute states that one of Congress' purposes in enacting the amendments was to "remove

hold securities in the name of a nominee.

The Department has reconsidered its position with respect to the application of the trust requirement to securities that are owned by an employee benefit plan, but are registered in street name. On the basis of the comments received, it appears that where securities owned by a plan are held in the name of a nominee or in street name, the trustee of the plan ordinarily retains exclusive control over all of the rights of ownership of such securities. For example, notwithstanding that securities are held in street name, the trustee may freely sell the securities, or pledge them, and, in the case of stock, may vote the shares. In addition, the comments received indicate that other statutes and regulations relating to such arrangements provide certain meaningful protections to the owners of securities (including plans) against the risks arising from the registration of the securities in the name of an entity other than their beneficial owner. Therefore, the Department has determined that the holding of securities of an employee benefit plan in nominee or street name will not, in itself, be a violation of the trust requirement of section 403(a). A new paragraph has accordingly been added to the final regulation to make it clear that the trust requirement of section 403(a) does not prohibit the holding of securities in street name or in the name of a nominee, provided such securities are held on the plan's behalf by a bank or its nominee, a broker-dealer or its nominee, or a "clearing agency" (as defined in the Securities Exchange Act of 1934) or its nominee.[19]

Notwithstanding the inclusion of a specific provision relating to street name registration in the final regulation, the Department notes that plan trustees and other plan fiduciaries should take steps to assure that any such arrangement in the securities. In addition, plan trustees and other fiduciaries have an obligation to evaluate the safeguards against loss that exist with respect to an arrangement under which securities owned by a plan are held in street name.[20] Such an evaluation is a particularly important part of a fiduciary's obligations in this context because the plan might be unable to dispose of securities held in street name on its behalf if the holder of such securities becomes bankrupt.

C. *Corporations Described in Section 501(c)(2) of the Internal Revenue Code.* Some commentators expressed concern that the regulation relating to the trust requirement as proposed by the Department would prevent a trustee of a plan from holding real property in a corporation described in section 501(c)(2) of the Internal Revenue Code.[21] According to these commentators, certain trustees have traditionally established such corporations in order to hold title to real property in states in which they do not do business because many states prohibit corporations other than those domiciled or doing business in the state from owning real property that is located within the state.

In the case of a corporation described in section 501(c)(2) of the Code that is organized for purposes of holding real property on behalf of a plan, the plan's rights to the assets of such corporation—*i.e.* the real property held by the corporation—are evidenced by shares of stock. Therefore, it appears that, under such an arrangement, a plan trustee would control all of the plan's

Accordingly, the final regulation has been revised to make it clear that the trust requirement of section 403(a) would be satisfied with respect to real property held in a 501(c)(2) corporation on behalf of the plan if the stock of the corporation is held in trust.

D. *Certain Plan Investments.* Under the Department's proposed regulation dealing with the definition of plan assets, the assets of an entity in which a plan makes an equity investment under certain circumstances would include "plan assets".[23] Several commentators noted that the proposed regulation relating to the trust requirement did not state how the requirement that plan assets be held in trust is satisfied in such cases.

The Department is not at this time addressing all of the issues that have been raised in connection with the proposed regulations relating to plan investments in entities such as corporations and partnerships. Nonetheless, the Department believes that is both feasible and appropriate to describe, in the regulation being issued here, how the trust requirement of ERISA is satisfied where the assets of an entity include plan assets by reason of a plan's investment in the entity.

In the Department's view, the fact that the assets of an entity in which a plan invests may, for purposes of the *fiduciary responsibility provisions* ERISA, be considered to include plan assets does not, in itself, have the effect of requiring that the assets of the entity be held in trust. In such circumstances, the plan's rights in the entity, and the terms and conditions to which its interest in the entity is subject, are usually governed by a contract, certificate, or other instrument. Where control over such an instrument is sufficient to provide the plan's trustee with exclusive authority to exercise all to the plan's rights with respect to the assets of the entity (other than those rights which arise from the fiduciary obligations of either the management of the entity or other persons who are fiduciaries with respect to such assets) the trustee's control of such instrument is sufficient to satisfy the trust requirements of section 403(a). For example, if the assets of a limited partnership are considered (for purposes of ERISA) to include plan assets by reason of a plan's acquisition of an interest in the partnership, persons with discretionary authority or control with respect to the assets of the partnership would be fiduciaries (because they are exercising discretion over plan assets). However, under the final trust regulation, it is the evidence of the plan's interest in the partnership, rather than some other evidence of ownership of an interest in each of the partnership's assets, that must be held in trust.

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[19] The specific provision relating to securities held in street name or by a nominee deals with those arrangements which were brought to the attention of the Department in the public comments. The regulation does not specifically address how the trust requirement would be satisfied with respect to other arrangements under which securities might be held on behalf of a plan.

[20] See the general discussion above regarding the application of the trust requirement. Among the factors that would be relevant to such an evaluation in cases where securities are held in the name of a broker-dealer or its nominee would be the financial stability of the broker-dealer, the safeguards established for the holding of securities, the extent to which adequate insurance is provided against loss (relative to the value of the securities held on behalf of the plan), and the feasibility of alternative methods of holding the securities.

[21] Section 501(c)(2) of the Code exempts from taxation a "(c)orporation organized for the exclusive purpose of holding title to property, collecting income therefrom and turning over the entire amount thereof, less expenses, to an

[22] The Department will separately address the issue of when the assets of a plan will be considered to include the underlying assets of a corporation which is wholly owned by the plan in its final regulation dealing with the definition of "plan assets." The Department also notes that Interpretive Bulletin 75–2, 29 CFR 2509.75–2 describes the application of certain of the fiduciary responsibility provisions of ERISA in cases where a corporation is controlled by a plan.

[23] See paragraph (e) of the proposed plan assets regulation, discussed above.

In view of the foregoing, the final regulation relating to the trust requirement includes a new paragraph which indicates that when the assets of an entity are considered to include plan assets by reason of a plan's investment in the entity, the trust requirement is satisfied if the certificate, contract or other instrument evidencing the plan's investment is held in trust.

E. *Administrative Exemptions From the Trust Requirement.* Several commentators discussed various issues concerning the provision of the proposed regulations that would have provided a limited exemption from the trust requirement of section 403(a) for certain employee contributions under welfare plans. This provision has been reserved to when employee contributions become "plan assets," and the Department intends to deal with all of the comments relating to employee contributions in its regulation relating to the definition of that term.

Another commentator requested that the Department provide an exemption from the trust requirement for certain organizations described in section 501(c)(9) of the Internal Revenue Code. The Department will also deal separately with that issue.

F. *Conforming Change.* Section 403b-1(b) of the final regulation has been modified to include an additional exemption from the trust requirement of ERISA that was enacted as part of the Multiemployer Pension Plan Amendments Act of 1980. This exemption concerns certain unfunded plans of companies owned by employees and former employees.[24]

G. *Organization of the Final Regulation Relating to the Trust Requirement.* In view of the revisions that have been made to the final regulation, the Department has decided to reorganize the regulation for the purpose of clarity. Paragraph (a) of the regulation under section 403(a) sets forth the general rule that plan assets must be held in trust; paragraph (b) of the regulation describes the manner in which the trust requirement is satisfied in certain specific situations; paragraph (c) sets forth specific obligations of trustees and is derived from paragraph (a) of the proposed regulation.

The final regulation under section 403(b) sets forth the exemptions from the trust requirement specifically established by statute.

In addtion, a minor revision has been made to paragraph (a)(3) of the regulation under section 403(b) to make it clear that the language limiting the availability of the statutory exemption in section 403(b)(3) of ERISA to assets held under certain custodial accounts applies to plans covering employees described in section 401(c)(1) of the Internal Revenue Code as well as to individual retirement accounts.

Regulatory Flexibility Act

rulemaking was published before January 1, 1981. *See* section 4 of the Regulatory Flexibility Act, Pub. L. 96-354, 94 Stat. 1165 (1980).

Executive Order 12291

The Department has determined that the regulations being issued here are not "major" rules as defined in section 1(b) of Executive Order 12291, because they are not likely to result in: an annual effect on the economy of $100 million or more; a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

Estimates recently compiled by the Department of Housing and Urban Development indicate that approximately 7.3% of current (1981) private non-insured plan assets are in housing related entities, or approximately $20 billion. To the extent pension fund fiduciaries have avoided investing pension fund assets in governmental mortgage pools because of concern or uncertainty as to the extent of their fiduciary liabilities or fear of engaging in prohibited transactions, this regulation could increase investments by pension funds in governmental mortgage pools. This possible transfer of funds from other investments to governmental mortgage pools, will, of course, result in no net increase in pension fund investments in the economy.

While no additional pension investments will result from the regulation relating to governmental mortgage pools, the allocation of plan assets among competing investments would be expected to be more efficient to the extent there have been impediments imposed on investment managers. In addition, the regulation would not result in a reduction in have a positive effect on competition for funds and the functioning of the market.

Similarly, the clarification of the trust requirement will allow normal business practices to continue while still protecting the interests of participants and beneficiaries.

Paperwork Reduction Act

The regulations being issued here are not subject to the requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*) because they do not contain an "information collection request" as defined in 44 U.S.C. 3502(11).

Statutory Authority

The regulations below are adopted pursuant to the authority contained in section 505 of ERISA (Pub. L. 93–406, 88 Stat. 894; 29 U.S.C. 1135) and under section 102 of Reorganization Plan No. 4 of 1978 (43 FR 47713, October 17, 1978), effective December 31, 1978 (44 FR 1065, January 3, 1979), 3 CFR, 1978 Comp., .332.

List of Subjects in 29 CFR Part 2550

Employee benefit plans, Employee Retirement Income Security Act, Employee Stock Ownership Plans, Exemptions, Fiduciaries, Investments, Investments, foreign, Party in interest, Pensions, Prohibited transactions, Real estate, Securities, Surety bonds, Trusts and trustees.

Regulation

For the reasons stated above, Subchapter F, Chapter XXV, Subtitle B, of Title 29, Code of Federal Regulations, is amended as set forth below.

PART 2550—RULES AND REGULATIONS FOR FIDUCIARY RESPONSIBILITY

1. The authority citation for Part 2550 is revised to read as follows:

Authority: Sec. 505, Employee Retirement Income Security Act of 1974. Pub. L. 93–406, 88 Stat. 894 (29 U.S.C. 1135) unless otherwise noted. Sec. 401b–1 also issued under sec. 102, Reorganization Plan No. 4 of 1978 (43 FR 47713, October 17, 1978), effective December 31, 1978 (44 FR 1065, January 3, 1979), 3 CFR, 1978 Comp. .332.

as follows:

§ 2550.401b–1 Definition of "Plan Assets"—Governmental Mortgage Pools.

(a) *In General.* (1) Where an employee benefit plan acquires a guaranteed governmental mortgage pool certificate, as defined in paragraph (b), then, for purposes of part 4 of Title I of the Act and section 4975 of the Internal Revenue Code, the plan's assets include the certificate and all of its rights with respect to such certificate under applicable law, but do not, solely by reason of the plan's holding of such certificate, include any of the mortgages underlying such certificate.

(b) A "guaranteed governmental mortgage pool certificate" is a certificate backed by, or evidencing an interest in, specified mortgages or participation interests therein and with respect to which interest and principal payable pursuant to the certificate is guaranteed by the United States or an agency or instrumentality thereof. The term "guaranteed governmental mortgage pool certificate" includes a mortgage pool certificate with respect to which interest and principal payable pursuant to the certificate is guaranteed by:

(1) The Government National Mortgage Association;

(2) The Federal Home Loan Mortgage Corporation; or

(3) The Federal National Mortgage Association.

3. In Part 2550, § 2550.403a–1 and § 2550.403b–1 are added in the appropriate place to read as follows:

§ 2550.403a–1 Establishment of trust.

(a) *In General.* Except as otherwise provided in § 403b–1, all assets of an employee benefit plan shall be held in trust by one or more trustees pursuant to a written trust instrument.

(b) *Specific applications.* (1) The requirements of paragraph (a) of this section will not fail to be satisfied merely because securities of a plan are held in the name of a nominee or in street name, provided such securities are held on behalf of the plan by:

(i) A bank or trust company that is subject to supervision by the United States or a State, or a nominee of such bank or trust company;

(iii) A clearing agency, as defined in section 3(a)(23) of the Securities Exchange Act of 1934, or its nominee.

(2) Where a corporation described in section 501(c)(2) of the Internal Revenue Code holds property on behalf of a plan, the requirements of paragraph (a) of this section are satisfied with respect to such property if all the stock of such corporation is held in trust on behalf of the plan by one or more trustees.

(3) If the assets of an entity in which a plan invests include plan assets by reason of the plan's investment in the entity, the requirements of paragraph (a) of this section are satisfied with respect to such investment if the indicia of ownership of the plan's interest in the entity are held in trust on behalf of the plan by one or more trustees.

(c) *Requirements concerning trustees.* The trustee or trustees referred to in paragraphs (a) and (b) shall be either named in the trust instrument or in the plan instrument described in section 402(a) of the Act, or appointed by a person who is a named fiduciary (within the meaning of section 402(a)(2) of the Act). Upon acceptance of being named or appointed, the trustee or trustees shall have exclusive authority and discretion to manage and control the assets of the plan, except to the extent that:

(1) The plan instrument or the trust instrument expressly provides that the trustee or trustees are subject to the direction of a named fiduciary who is not a trustee, in which case the trustees shall be subject to the proper directions of such fiduciary which are made in accordance with the terms of the plan and which are not contrary to the provisions of Title I of the Act of Chapter XXV of this Title, or

(2) Authority to manage, acquire or dispose of assets of the plan is delegated to one or more investment managers (within the meaning of section 3(38) of the Act) pursuant to section 402(c)(3) of the Act.

(1) To any assets of a plan which consist of insurance contracts or policies issued by an insurance company qualified to do business in a State;

(2) To any assets of such an insurance company or any assets of a plan which are held by such an insurance company;

(3) To a plan—

(i) Some or all of the participants of which are employees described in section 401(c)(1) of the Internal Revenue Code of 1954; or

(ii) Which consists of one or more individual retirement accounts described in section 408 of the Internal Revenue Code of 1954 to the extent that such plan's assets are held in one or more custodial accounts which qualify under section 401(f) or 408(h) of such Code, whichever is applicable;

(4) To a contract established and maintained under section 403(b) of the Internal Revenue Code of 1954 to the extent that the assets of the contract are held in one or more custodial accounts pursuant to section 403(b)(7) of such Code.

(5) To any plan, fund or program under which an employer, all of whose stock is directly or indirectly owned by employees, former employees or their beneficiaries, proposes through an unfunded arrangement to compensate retired employees for benefits which were forfeited by such employees under a pension plan maintained by a former employer prior to the date such pension plan became subject to the Act.

(b) [Reserved]

Signed at Washington, D.C. this 13th day of May, 1982.

Jeffrey N. Clayton,

Administrator, Pension and Welfare Benefit Programs, Labor-Management Services Administration, U.S. Department of Labor.

[FR Doc. 82-13400 Filed 5-13-82; 3:17 pm]

BILLING CODE 4510-29-M

Certain Transactions Involving Mortgage Pool Investment Trusts

AGENCY: Office of Pension and Welfare Benefit Programs, Labor.

ACTION: Notice of Proposed Amendments to Class Exemption 81-7.

SUMMARY: This document contains a notice of pendency before the Department of Labor (the Department) of proposed amendments to Prohibited Transaction Exemption 81-7. Prohibited Transaction Exemption 81-7 exempts from the prohibited transaction restrictions of the Employee Retirement Income Security Act of 1974 (the Act) and from certain taxes imposed by the Internal Revenue Code of 1954 (the Code) certain transactions related to the origination, maintenance and termination of mortgage pool investment trusts (mortgage pools), and the acquisition and holding of certain mortgage-backed pass-through certificates (certificates) of mortgage pools under certain circumstances by employee benefit plans (investing plans). In addition to making certain technical changes in the class exemption, the proposed amendments would expand the coverage of the class exemption to include: (1) Pools consisting of loans secured by second mortgages or second deeds of trust; and (2) forward delivery commitments by investing plans to purchase pool certificates under certain circumstances. The proposed amendments, if adopted, would affect participants and beneficiaries of employee benefit plans investing in such certificates, the sponsors and trustees of such mortgage pools, and other persons engaging in the described transactions.

DATES: Written comments and requests for a public hearing must be received by the Department on or before June 17, 1982.

EFFECTIVE DATE: It is proposed to make these amendments effective January 1, 1975.

ADDRESSES: All written comments and requests for a hearing (preferably at least three copies) should be sent to: Office of Fiduciary Standards, Pension

received will be available for public inspection in the Public Documents Room of Pension and Welfare Benefit Programs, U.S. Department of Labor, Frances Perkins Building, Room N4677, 200 Constitution Avenue, NW., Washington, D.C.

FOR FURTHER INFORMATION CONTACT: Carol Gold of the Office of Fiduciary Standards, Pension and Welfare Benefit Programs, U.S. Department of Labor, (202) 523-8971, or William J. Flanagan of the Plan Benefits Security Division, Office of the Solicitor, U.S. Department of Labor, (202) 523-8610. (These are not toll-free numbers.)

SUPPLEMENTARY INFORMATION: On January 23, 1981, the Department granted Prohibited Transaction Exemption 81-7 (PTE 81-7) for certain transactions involving plan investments in mortgage pool investment trusts. (46 FR 7520.)[1] As defined in section III (B) of PTE 81-7, a mortgage pool is an investment pool the corpus of which (1) is held in trust; and (2) consists solely of (a) interest bearing obligations secured by first mortgages or deeds of trust on single-family residential property; (b) property which had secured such obligations and which has been

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[1] The Department originally proposed class exemptive relief for transactions involving mortgage pools (45 FR 29937, May 6, 1980) on the basis of individual exemption applications filed by the Bank of America National Trust and Savings Association (D-1448), the Crocker National Bank (D-1449), the Wells Fargo Bank, National Association (D-1357) and PMI Mortgage Corporation (D-1447). These applicants, although not originally requesting class relief, indicated that transactions entered with regard to each of their pools were similar to those entered with regard to pools formed by other institutions within the mortgage pool industry. Because of this, the Department decided to treat these four individual applications as the basis upo which to propose class exemptive relief. The exemptive relief proposed and eventually adopte is not, therefore, limited to transactions involvin pools formed by the four applicants, but rather available for any transaction involving a mortg pool which meets the conditions contained in t exemption.

In response to the May 6, 1980 proposal, the Department received a large number of comme and, pursuant to requests by the commentator a hearing on the proposal on September 9, 198. These comments, the transcript of the hearing, a the original exemption applications are availabl public inspection in the Public Documents Room comprising the pool corpus have been either originated by the sponsor of the pool or purchased by the pool sponsor from other sources. These mortgage loans are collected by the pool sponsor and transferred in trust to a trustee which is independent of the pool sponsor. The pool trustee then transfers to the pool sponsor certificates representing fractional undivided beneficial interests in the pooled mortgages. The certificates are then sold by the pool sponsor (or by an underwriting syndicate) to investors including employee benefit plans. The principal and interest payments made by individual mortgagors are passed through the mortgage pool in the form of fixed monthly payments to certificateholders, with the pool sponsor retaining a fixed percentage of the interest as a servicing fee. The rights and obligations of the pool sponsor and pool trustee are set forth in a binding pooling and servicing agreement which governs the organization and maintenance of the mortgage pool.[2]

It should be noted that the Act contains no *per se* prohibition against plan investments in mortgage pool certificates or any other mortgage-related investment. Sections 406 and 407 of the Act, however, do generally prohibit transactions between a plan and a party in interest (including a fiduciary) with respect to such plan. Where the sponsor, trustee or insurer of a mortgage pool are not parties in interest with respect to a plan, the Act will not prohibit plan investments in such pool so long as the plan fiduciaries have exercised their fiduciary authority in accordance with the standards established in section 404 of the Act. Where, however, one or more of the entities involved in the organization and maintenance of a mortgage pool are parties in interest with respect to a plan, the Act may prohibit investments by such plan in the pool in the absence of an administrative or statutory exemption.

Prohibited Transaction Exemption 81-7 was granted to provide generalized

when the pool sponsor, trustee or insurer are parties in interest with respect to an investing plan. Section I(A)-(D) of the exemption provides relief for several different types of transactions under certain conditions specified for each type of transaction.[3] Section I(A) provides relief from the prohibitions of sections 406(a) and 407 of the Act[4] for the direct or indirect sale, exchange or transfer of certificates between a plan and the pool sponsor, and for the continued holding of such certificates by the plan. Section I(B) provides relief from the prohibitions of section 406(b)(1) and (2) of the Act for the direct or indirect sale, exchange or transfer of certificates between a plan and the pool sponsor when the pool sponsor, trustee or insurer is a fiduciary with respect to the plan assets invested in such certificates. Among the conditions applicable to this relief are that the sale, exchange or transfer be approved by an independent fiduciary, that the plan pays no more for the certificates than would be paid in an arm's-length transaction with an unrelated party,[5] and that a plan cannot purchase more than 25% of the amount of the issue of certificates. Section I(C) provides conditional relief from the restrictions of sections 406(a) and (b), and 407 of the Act for all transactions in connection with the servicing and

of sections 406(a) and 407 of the Act for any transactions to which such restrictions would otherwise apply merely because a person is deemed to be party in interest with respect to a plan who provides services to the plan, or who has a relationship to a service provider described in section 3(14)(F), (G), (H) or (I) of the Act, solely by reason of the ownership of a certificate by such plan. Section II of PTE 81-7 contains conditions applicable to all of the transactions covered by section I. These conditions are designed to assure a minimum level of protection for investing plans, and include, among others, a condition tht the pool have a trustee which is not an affiliate of the pool sponsor unless such sponsor is a governmental or quasi-governmental entity. Finally, section III contains definitions of terms used in the class exemption. It was th eDepartment's intention that these definitions be broad enough to provide relief to a wide spectrum of entities involved in the mortgage pool industry.

Since the adoption of PTE 81-7, it has come to the Department's attention that further relief in additional areas may be justified under the class exemption. One such area relates to pools comprised of notes secured by second mortgages or second deeds of trust. The other area deals with forward delivery commitments by plans to purchase certificates. The Department's proposals with regard to each of these areas are discussed below.

A. Pools of Second Mortgages or Second Deeds of Trust

Section III(B) of PTE 81-7 states:

> For the purposes of this exemption, the term "mortgage pool" means an investment pool the corpus of which
> (1) is held in trust; and
> (2) consists solely of
> (a) interest bearing obligations secured by

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[2] For a more detailed explanation of the form and

[3] For the sake of convenience, the entire text of PTE 81-7, including the proposed amendments, is reprinted at the end of this notice.

[4] Pursuant to Reorganization Plan No. 4 of 1974 (43 FR 47713, October 17, 1978), the authority of the Secretary of the Treasury to grant exemptions of the type herein proposed was transferred to the Secretary of Labor. As a result, PTE 81-7 contains relief both from sections 406 and 407 of the Act and from the parallel provisions of the Internal Revenue Code of 1954. References in this discussion to sections of the Act should be understood to encompass references to the relevant provisions of the Code.

[5] As originally printed (46 FR 7520, 7526), this condition, contained in section I(B)(1)(b) of the exemption, stated that a plan would have to pay more than an arm's-length price for the certificates. This misprint was corrected by notice in the Federal Register on February 13, 1981 (46 FR 12363), and the corrected version is reprinted in this notice today.

[6] The preamble to the final class exemption indicated that PTE 81-7 would give relief from both section 406(a) and section 406(b) of the Act for transactions in connection with the servicing and operation of a mortgage pool. 46 FR 7520, 7522. However, the reference to section 406(b) was inadvertently omitted from the text of section I(C) of the final exemption. This oversight has been

obligations and which has been acquired by foreclosure; and

(c) undistributed cash.

46 FR 7520, 7527. The definition of the term "mortgage pool" in the proposal had been similarly restricted to first mortgages or first deeds of trust. 45 FR 29937, 29946. In response to the proposal, the Department received two comments which requested that the Department expand this definition to include junior lien loans. Although these commentators provided some information about the quality of investments in junior lien loans, the preamble to the final class exemption stated:

> The Department notes that the proposal was based on information regarding pools of first mortgage loans. The applications, comments and hearing testimony all indicated that first mortgage pools have a structural uniformity which makes class relief possible. The Department has not received similar information concerning second mortgage pools. While there is nothing on the record reflecting adversely upon the quality of investment in second mortgages and second mortgage pools, the record is similarly silent regarding the extent to which second mortgage pools differ as a general matter, from first mortgage pools. Different conditions may be necessry for pools of second mortgage loans. In the absence of sufficient information upon which to base class exemptive relief, the Department has decided not to adopt this comment and the final exemption is restricted to pools of first lien loans.

46 FR 7520, 7525.

Since the publication of PTE 81–7, the Department has received additional information regarding pools of loans secured by second mortgages and second deeds of trust. This information has come in the form of two applications for individual exemptions filed on behalf of Transamerica Financial Corporation (D–2789) and Merrill Lynch MBS Inc. (D–3060). These applications indicate that there is a uniformity of structure and function among pools of second mortgage loans similar to that which exists for pools of first mortgage loans. As a result, the Department has decided to treat these applications as the basis upon which to propose class exemptive relief for pools of loans secured by

investing pools formed by the applicants. Rather, the relief woud be available for any transaction involving a pool which meets the terms of the amendment and the other conditions of the class exemption.

Both applications indicate that pools of second mortgage loans are organized and maintained in the same way as pools of first mortgage loans. Both applications request exemptive relief which is the same as that provided in PTE 81–7, only applicable also to second mortgage pools. The potential prohibited transactions identified by the applicants are precisely those examined in detail in the preamble to the proposed class exemption. See 45 FR 29937, 29941–44.

The applicants represent that the provision of exemptive relief for pools of loans secured by second mortgages or second deeds of trust is administratively feasible; in the interest of investing plans, their participants and beneficiaries; and protective of the rights of participants and beneficiaries of such plans. The applicants state that, as in the case of pools of first mortgage loans, second mortgage pool certificates provide plans with a steady flow of income as well as a sound method by which to diversify plan investments. The applicants indicate that second lien loans provide a higher rate of return over a shorter period of time. Statistics provided by the applicants indicate that the default rate on second lien notes is comparable to that on first lien loans.

The applicants further represent that second mortgage pools share the same structural safeguards present in the pools exempted under PTE 81–7. Chief among these is the fact that each pool is administered by trustees independent of the pool sponsor for the sole benefit of the certificateholders. In addition, the operation of each pool is governed by a binding pooling and servicing agreement which, among other things, operates to prevent the pool sponsor from retaining unreasonable fees. Further, the applicants indicate that the sponsor of each pool will maintain a system for insuring against reductions in pass-through payments due to loan defaults.

The applicants also note that second mortgage pools will be subject to the

already built into the class exemption should be sufficient protection for plan participants and beneficiaries.

On the basis of these facts and representations, the Department is proposing to amend section III(B)(2)(a) to include interest bearing obligations secured by either first or second mortgages or deeds of trust on single-family residential property.

B. Forward Purchase Commitments

As proposed and granted, PTE 81–7 provides relief, under certain circumstances, for the sale of certificates between a plan and a party in interest with respect to such plan. During its consideration of PTE 81–7, the Department received one comment and some hearing testimony referring to the possibility that an investor could make a "forward delivery commitment"[7] for pool certificates. Although not specifically requested to provide exemptive relief for forward purchase commitments, the Department addressed this area in the preamble to the final class exemption, noting:

> The Department does not have sufficient information at this time to identify this practice completely, to ascertain the frequency of its use in the mortgage pool industry or to determine what, if any, abuses may be involved with such practices. The Department does not believe that it would be beneficial at this time to reopen the comment period regarding this subject and thereby delay adoption of a final class exemption . . . Therefore, to the extent that so-called "forward placements" or "forward commitments" involve transactions which precede the formation of a mortgage pool such transactions are beyond the scope of this class exemption. To the extent that members of the public believe that relief is appropriate for such transactions, they are invited to file with the Department an application for relief in accordance with the provisions of ERISA Procedure 75–1 [40 FR 18741, April 28, 1975].

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[7] Information received by the Department indicates that the terms "forward delivery commitment," "forward placement" and "delayed delivery" all refer to the same type of transactio involving pool certificates. For the sake of convenience, the Department has chosen to us term "forward delivery commitment" to refer t transaction.

Department has received additional information regarding the use of forward delivery commitments and their importance in the mortgage pool industry. Although the Department has not received any requests for exemptive relief pursuant to ERISA Proc. 75-1, the Department believes that the information it has received forms a sufficient basis upon which to propose exemptive relief.[8] This information and its ramifications are discussed below.

1. *Contracts for Forward Delivery Commitments.* The information received by the Department indicates that forward delivery commitments may play a central role in the formation of some mortgage pools and the marketing of some pool certificates. In the preamble to the proposed mortgage pool class exemption, the Department described in detail the manner in which a mortgage pool is established. 45 FR 29937, 29938-39. Basically, as described in that preamble, a mortgage pool is formed when the pool sponsor chooses loans from among those it has made or bought, and transfers those loans in trust to an independent trustee. The pool trustee in turn transfers to the pool sponsor certificates representing fractional, undivided beneficial ownership interests in the pooled loans. The pool sponsor, either through a broker or directly, then places certificates with prospective investors.

The additional information recently received by the Department indicates that the pool sponsor, before collecting loans for inclusion in a pool, seeks to assure that the certificates of a subsequently formed pool will be marketable. This concern is especially acute during periods of fluctuating interest rates, since, when interest rates rise, such fluctuations could force pool sponsors to sell at a discount certificates from a pool of previously-made loans having interest rates lower than current market levels. It appears that pool sponsors, in order to avoid such situations, will seek agreements from prospective investors whereby such certificates possessing a specified pass-through interest rate and evidencing interests in a pool possessing certain characteristics. Such agreements are called forward delivery commitments (or forward delivery commitment contracts), and are of two types. First, a mandatory forward delivery commitment obligates both parties to perform or risk default. In other words, the pool sponsor is obligated to deliver by a specified date certificates possessing certain agreed upon characteristics. At the same time, the investor is obligated to accept delivery of a specified amount of such certificates provided the certificates meet the negotiated criteria. The second type are optional (or standby) forward delivery commitments which provide that performance by either the pool sponsor or the investor (or possibly both) is optional. One example of an optional forward delivery commitment contract would occur when the pool sponsor is not required to deliver certificates, but if he does, the investor must accept delivery if the certificates meet the agreed upon criteria.

It appears that, in some cases, the investor making a forward delivery commitment will receive a so-called "commitment fee" from the pool sponsor. Typically, this fee (usually equal to one basis point) is paid with the understanding that it will be either refunded to the pool sponsor or used against the price of the certificates upon delivery. In this respect, this fee operates like an earnest money deposit. Other than this fee, it does not appear that any other funds change hands when the investor gives a commitment. The investor is not obligated to pay until delivery is tendered.

The information received by the Department indicates that forward delivery commitment contracts are concluded on an over-the-counter basis in a bid and offer market through the use of a broker. It appears that there are between seven and ten brokers currently in this market. The forward market appears to be fairly deep, especially for certificates guaranteed by the Government National Mortgage Corporation, and daily "quotes" of activities of the mortgage pool industry may be substantially facilitated through the use of forward delivery commitments. This is especially true in situations where the pool sponsor would be reluctant to make mortgage loans for inclusion in a pool until such pool sponsor has received forward delivery commitments for a substantial portion of the certificates of a prospective pool. It has been suggested that the Department's discussion of forward delivery commitments in the preamble to PTE 81-7, quoted above, has discouraged pension plans from entering the forward market and thereby limited plan participation in the mortgage pool market in general. It was not the Department's intention to limit the range of prudent plan investment options. Rather, the Department hoped that identifying areas in which the original applicants and commentators had failed to supply sufficient information would cause other individuals to submit additional facts in this area. The information received by the Department seems to fill the need identified in the preamble to PTE 81-7, and based upon that information, the Department is proposing to amend PTE 81-7 to provide the exemptive relief discussed below.

2. *Proposed Exemptive Relief.* PTE 81-7 provides relief for a broad range of transactions related to mortgage pools, including the sale of certificates to plans. As noted above, section I(A) of PTE 81-7 exempts from the prohibitions of section 406(a) of the Act the direct or indirect sale of certificates between a plan and a pool sponsor when the pool sponsor, pool trustee or pool insurer is a party in interest with respect to the plan. Section I(B) provides relief for such sales when the pool sponsor, pool trustee or pool insurer is a fiduciary with respect to the plan assets being invested in pool certificates. The information received by the Department indicates that, in most cases, a forward delivery commitment contract is a commercially reasonable adjunct to the sale of pool certificates. As a result, in

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[8] Section 3.01 of ERISA Proc. 75-1 provides that the Secretary of Labor may initiate an exemption proceeding on his own motion. 40 FR 18471.

81–7, the Department believes it is appropriate to provide relief for forward delivery commitments involving mortgage pool certificates.

In order to provide this relief, the Department is proposing to add two paragraphs to section III of PTE 81–7, which contains definitions of terms used in the class exemption. Proposed paragraph G states that, for the purposes of this exemption, the term "sale" shall include a forward delivery commitment by an investing plan provided certain conditions are met. The first proviso of this proposed paragraph states that the relief provided by section I(A) of the exemption would be available only if the terms of the forward delivery commitment are no less favorable to the plan then they would be in an arm's length transaction with an unrelated party. The second proviso of this proposed paragraph relates to section I(B), and states that the relief provided in section I(B) from the restrictions of section 406(b) of the Act would be available only if three conditions are met. First, the forward delivery commitment must be approved by a fiduciary independent of the pool sponsor, trustee or insurer who has authority to manage and control those plan assets being committed for investment in such certificates. This provision is designed to mirror the condition contained in section I(B)(1)(a) of the class exemption and to assure oversight by an independent fiduciary both at the time the commitment is made and when the sale is finally executed. Second, the forward delivery commitment shall not be an option or standby commitment unless performance is optional on the part of the investing plan. The information received by the Department indicates that the market for optional forward delivery commitments is thin, and, thus, the structural market safeguards relied upon, in part, in PTE 81–7 would not be present. Third, at the time the plan is called upon to perform pursuant to its commitment, and the sale of certificates is executed, all of the conditions of address the situation in which a plan properly entered a forward delivery contract but subsequently cannot honor its commitment without engaging in a prohibited transaction.

Proposed paragraph H defines the term "forward delivery commitment" and "forward delivery commitment contract". The proposal states that these terms would mean a contract for the purchase or sale of one or more certificates to be delivered at an agreed future settlement date, which is more than thirty calendar days after the contract's trade date. These terms would include both mandatory contracts (which contemplate obligatory delivery and acceptance of the certificates) and optional (also called standby) contracts (which give one party the right but not the obligation to deliver certificates to, or demand delivery of certificates from, the other party). Proposed paragraph H is patterned after the common usage of this term in the mortgage pool industry.[9]

General Information

The attention of interested persons is directed to the following:

(1) The fact that a transaction is the subject of an exemption under section 408(a) of the Act and section 4975(c)(2) of the Code does not relieve a fiduciary or other party in interest or disqualified person from certain other provisions of the Act and the Code, including any prohibited transaction provisions to which the exemption does not apply and the general fiduciary responsibility provisions of section 404 of the Act which require, among other things, that a fiduciary discharge his duties respecting the plan solely in the interests of the participants and section 404(a)(1)(B) of the Act; nor does it affect the requirement of section 401(a) of the Code that the plan must operate for the exclusive benefit of the employees of the employer maintaining the plan and their beneficiaries;

(2) Before an exemption may be granted under section 408(a) of the Act and section 4975(c)(2) of the Code, the Department must find that the exemption is administratively feasible, in the interests of the plan and of its participants and beneficiaries, and protective of the rights of participants and beneficiaries of the plan; and

(3) The proposed exemption, if granted, will be supplemental to, and not in derogation of, any other provisions of the Act and the Code, including statutory or administrative exemptions and transitional rules. Furthermore, the fact that a transaction is subject to an administrative or statutory exemption is not dispositive of whether the transaction is in fact a prohibited transaction.

Written Comments and Hearing Request

All interested persons are invited to submit written comments or requests for a hearing on the proposed exemption to the address and within the time period set forth above. All comments will be made a part of the record. Comments and requests for a hearing should state the reasons for the writer's interest in the proposed exemption. Comments received will be available for public inspection with the applications for exemption at the address set forth above.

Proposed Exemption

On the basis of the facts and representations set forth in the applications, and other information available to the Department, the Department is considering amending, to read as set forth below, Prohibited Transaction Exemption 81–7 (46 FR 7520) under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code, and in accordance with the procedures set forth in ERISA Procedure 75–1:

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[9] The information received by the Department indicates that the mortgage pool industry distinguishes between forward delivery commitments on the one hand and future contacts in pass-through certificates on the other. It appears that the distinction (other than differing regulatory frameworks) lies in the fact that an investor making a forward delivery commitment is primarily interested in the delivery of specific certificates. Investors in the future market are less concerned with delivery, seeking instead a certain investment yield rather than an identifiable certificate. By utilizing the industry definition of the term "forward delivery commitment," the Department intends that PTE 81–7 will not cover future transactions in pass-

I. Transactions

A. Effective January 1, 1975, the restrictions of sections 406(a) and 407 of the Employee Retirement Income Security Act of 1974 (the Act) and the taxes imposed by section 4975(a) and (b) of the Internal Revenue Code of 1954 (the Code) by reason of section 4975(c)(1) (A) through (D) of the Code shall not apply to the following transactions involving mortgage pool investment trusts (mortgage pools) and pass-through certificates evidencing interests therein (certificates):

(1) The direct or indirect sale, exchange or transfer of certificates in the initial issuance of certificates between the sponsor of a mortgage pool and an employee benefit plan when the sponsor, trustee or insurer of such pool is a party in interest with respect to such plan, provided that the plan pays no more than fair market value for such certificates, and provided further that the rights and interests evidenced by such certificates are not subordinated to the rights and interests evidenced by other certificates of the same mortgage pool;

(2) The continued holding of certificates acquired pursuant to subparagraph (1), above, by an employee benefit plan.

B. Effective January 1, 1975, the restrictions of section 406(b)(1) and (2) of the Act and the taxes imposed by section 4975(a) and (b) of the Code by reason of section 4975(c)(1)(E) of the Code shall not apply to the following transactions involving mortgage pools and certificates evidencing interests therein:

(1) The direct or indirect sale, exchange or transfer of certificates in the initial issuance of certificates between the sponsor or a mortgage pool and an employee benefit plan when the sponsor, trustee or insurer of such pool is a fiduciary with respect to the plan assets invested in such certificates provided:

(a) Such sale, exchange or transfer is expressly approved by a fiduciary independent of the pool sponsor, trustee or insurer who has authority to manage and control those plan assets being invested in such certificates;

(b) The plan pays no more for the certificates than would be paid in an arm's length transaction with an unrelated party;

(c) No investment management, advisory, or underwriting fee or sales commission or similar compensation is paid to the pool sponsor with regard to such sale, exchange or transfer;

(d) The total value of certificates purchased by a plan does not exceed 25% of the amount of the issue; and

(e) At least 50% of the aggregate amount of the issue is acquired by persons independent of the pool sponsor, trustee or insurer.

C. Effective January 1, 1975, the restrictions of section 406 (a) and (b) of the Act and the taxes imposed by section 4975 (a) and (b) of the Code by reason of section 4975(c) of the Code shall not apply to transactions in connection with the servicing and operation of the mortgage pool provided that: (1) such transactions are carried out in accordance with the terms of a binding pooling and servicing agreement; and (2) such pooling and servicing agreement is made available to investors before they purchase certificates issued by the pool.

D. Effective January 1, 1975, the restrictions of sections 406(a) and 407 of the Act and the taxes imposed by section 4975 (a) and (b) of the Code by reason of section 4975(c)(1) (A) through (D) of the Code shall not apply to any transactions to which such restrictions or taxes would otherwise apply merely because a person is deemed to be a party in interest (including a fiduciary) with respect to a plan by virtue of providing services to the plan (or who has a relationship to such service provider described in section 3(14) (F), (G), (H), or (I) of the Act), solely because of the ownership of a certificate evidencing an interest in a mortgage pool by such plan.

II. General Conditions

A. The relief provided under section I, above, is available only if the following conditions are met:

(1) The sponsor and trustee for each indemnifying certificateholders against reductions in pass-through payments due to defaults in loan payments or property damage. This system must provide such protection and indemnification up to an amount not less than the greater of one percent of the aggregate principal balance of all covered pooled mortgage, or the principal balance of the largest covered mortgage;

(2) Except in the case of a governmental or quasi-governmental entity such as the Federal National Mortgage Association, the trustee for each mortgage pool must not be an affiliate of the sponsor of such pool, provided, however, that the trustee shall not be considered to be an affiliate of the pool sponsor solely because the trustee has succeeded to the rights and responsibilities of the pool sponsor pursuant to the terms of the pooling and servicing agreement providing for such succession upon the occurrance of one or more events of default by the pool sponsor; and

(3) The sum of all payments made to and retained by the pool sponsor in connection with a mortgage pool, and all funds inuring to the benefit of the pool sponsor as a result of the administration of the mortgage pool, must represent not more than adequate consideration for selling the mortgage loans plus reasonable compensation for services provided by the pool sponsor to the pool.

III. Definitions

A. For the purpose of this exemption the term "sponsor" or "pool sponsor" means:

(1) The entity which organizes, and either continues to service or supervises the provision of services to, a mortgage pool comprised of mortgage loans either made or purchased by such entity; and

(2) Any successor thereto.

B. For the purposes of this exemption, the term "mortgage pool" means an investment pool the corpus of which

(1) Is held in trust; and

(2) Consists solely of

(a) Interest bearing obligations secured by either first or second

d by foreclosure; and
ndistributed cash.
r the purposes of this exemption,
ns "mortgage pool pass-through
ate," or "certificate" mean a
ate representing a beneficial
ed fractional interest in a
ge pool and entitling the holder of
rtificate to pass-through payment
ipal and interest from the pooled
ge loans, less any fees retained
pool sponsor.
r the purposes of this exemption,
n "affiliate" of another person

ny person directly or indirectly,
one or more intermediaries,
ing, controlled by or under
n control with such other person;
ny officer, director, partner,
ee or relative (as defined in
3(15) of the Act) of such other
and
ny corporation or partnership of
uch other person is an officer,
r, or partner.
urposes of this paragraph, the
ontrol" means the power to
e a controlling influence over the
ement or policies of a person
han an individual.
r the purposes of this exemption,
m "single-family, residential
y" means non-farm property
sing one to four dwelling units,
o includes condominiums.
r the purposes of this exemption,
on will be "independent of the
onsor, trustee, or insurer" only if:
uch person is not an affiliate (as
d in paragraph III(D) of this
tion) of the pool sponsor, trustee,
rer; and
either the pool sponsor, trustee,
, nor any affiliate thereof, is a
ry who has investment
ement authority or renders
nent advice with respect to any of
ets of such person.
or the purposes of this exemption,
n "sale" includes a forward
y commitment (as defined in
aph H, below) by an investing
rovided

in an arm's length transaction with an unrelated party; and

(2) For the purposes of section I(B)

(a) The forward delivery commitment has been expressly approved by a fiduciary independent of the pool sponsor, trustee or insurer who has authority to manage and control those plan assets being commited for investment in such certificates;

(b) The commitment shall not be an optional or standby commitment unless performance is optional on the part of the investing plan; and

(c) At the time of delivery, all of the conditions of section I(B) of this exemption are met.

H. For the purposes of this exemption, the terms "forward delivery commitment," and "forward delivery commitment contract" means a contract for the purchase or sale of one or more certificates to be delivered at an agreed future settlement date, which is more than thirty calendar days after the contract's trade date. The terms includes both mandatory contracts (which contemplate obligatory delivery and acceptance of the certificates) and optional contracts (which give one party the right but not the obligation to deliver certificates to, or demand delivery of certificates from, the other party).

Signed at Washington, D.C. this 13th day of May 1982.

Jeffrey N. Clayton,

Administrator, Pension and Welfare Benefit Programs, Labor-Management Services Administration, U.S. Department of Labor.

[FR Doc. 82–13401 Filed 5–13–82; 3:17 pm]

BILLING CODE 4510-29-M

[Prohibited Transaction Exemption 82–87; Exemption Applications D–1937 and D–2004]

Class Exemption for Transactions Involving Certain Residential Mortgage Financing Arrangements

AGENCY: Office of Pension and Welfare Benefit Programs, Labor.

ACTION: Grant of class exemption.

SUMMARY: This document contains a final exemption from certain of the prohibited transactions provisions of the

commitments for the provision of mortgage financing to purchasers of residential dwelling units, the receipt of a fee in exchange for the issuance of such commitment, the making or purchase of loans or participation interests therein pursuant to such commitments, and the direct making, purchase, sale, exchange or transfer of mortgage loans or participation interests therein by employee benefit plans, if the conditions specified in the exemption are met. The exemption affects participants and beneficiaries of employee benefit plans involved in such transactions, certain employers who contribute to such plans and other persons who engage in the described transactions. In the absence of this exemption, certain purchase and sale transactions between the plan and parties in interest and certain extensions of credit transactions between the plan and other parties in interest would be prohibited by the Act and the Code.

EFFECTIVE DATE: January 1, 1975. (Certain conditions, as specified herein, are applicable effective June 17, 1982.)

FOR FURTHER INFORMATION CONTACT: Paul R. Antsen, Office of Fiduciary Standards, Pension and Welfare Benefit Programs, U.S. Department of Labor, 200 Constitution Avenue NW., Room C–4526, Washington, D.C. 20216 (202)523–6915. This is not a toll free number.

SUPPLEMENTARY INFORMATION: On December 3, 1981, notice was published in the **Federal Register** (46 FR 58773; republished December 4, 1981, 46 FR 59335) of the pendency before the department of Labor (the Department) of a proposed class exemption from the restrictions of section 406(a)(1) (A) through (D) of the Act and from certain taxes imposed by section 4975 (a) and (b) of the code by reason of section 4975(c)(1) (A) through (D) of the Code.[1] The proposed exemption was based on and by the National Association of Home Builders (NAHB) (D-2004) (collectively referred to as the applicants) pursuant to section 408(a) of the Act and section 4975(c)(2) of the Code, and in accordance with the procedures set forth in ERISA Procedure 75-1 (40 FR 18471, April 28, 1975). In addition, other applications for both class and individual exemptions for transactions of the type covered by this exemption have been filed with the Department.[2]

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[1] Hereafter, references to provisions of the Act shall include references to parallel provisions of the Code.

The notice set forth a summary of facts and representations contained in the applications of the NCCMP and the NAHB, and referred interested persons to the applications for a complete statement of facts and representations. The applications have been available for public inspection at the Department in Washington, D.C.

The Department received 90 public comments with regard to the proposed class exemption. Upon consideration of all the comments submitted, the Department has determined to grant the proposed class exemption, subject to certain modifications. These modifications and the major comments are discussed below.

Description of the Proposal

Part I of the proposed class exemption provided conditional relief prospectively and retroactively to January 1, 1975, for transactions involving the issuance of commitments by employee benefit plans to purchasers of new single family dwelling units, the receipt of a fee in exchange for the issuance of such commitment and the actual making or purchase of the mortgage loan by the plan pursuant to such commitment. Part II of the proposal contained the general conditions applicable to the transactions listed in Part I. Conditions A and B addressed the nature and scope of the commitment and required that the commitment be consistent with customary practices in the residential financing industry. Condition C subject to a controlling influence over its management or policies by an entity related to the plan.[3] Condition D provided that the financing for the purchase of the residential dwelling unit must have been provided through an "established financial institution" (1) based on criteria which were consistent with customary practices in the residential mortgage industry, and (2) which commonly made mortgage loans on similar terms and conditions from its own funds. Condition E outlined the requirements for the loan which included an arm's length standard, that the loan be consistent with customary practices in the residential mortgage industry and that it be secured by a duly recorded first lien on the unit. Condition F limited those individuals who could exercise authority or render investment advice so as to make them a fiduciary with respect to the commitment decision. Condition G restricted those eligible parties in interest for whom the plan could provide mortgage financing. condition H outlined the requirements to be followed should a plan decide to service those loans which it acquired under this exemption. Condition I contained recordkeeping requirements required by the department in providing certain types of exemptive relief. Part III of the proposal contained definitions of the terms affiliate, established financial institution, and residential dwelling unit.

General Discussion

The two original applications for class exemptions which formed the basis for the proposal described general types of transactions which appeared to the Department to be customary for the residential mortgage industry. As a result of the comments filed with the Department pursuant to the proposal, as well as a review of other applications for class and individual exemptions, the Department has become aware of other transactions customarily involved in residential mortgage financing which, subject to applicable conditions, are also covered in this exemption. Therefore, as stated above, and as further described below, the class

In the Department's view, the class exemption, as granted, not only provides certainty to plan fiduciaries as to the application of the Act's prohibited transactions provisions to many transactions which are customary in residential mortgage financing, it is also designed to accommodate changes in the mortgage marketplace as they occur, without the necessity of amendments to the exemption. This flexibility results from the definition of a "recognized mortgage loan" contained in the final exemption. Pursuant to this definition, generally, the exemption will apply to covered transactions involving mortgages which are eligible for purchase by the Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC), the Federal National Mortgage Association (FNMA) (collectively the Agencies). As new residential financing arrangements are introduced in the marketplace for which the Agencies establish acquisition programs and underwriting standards, the exemption will automatically apply to such arrangements. It is the existence of these recognized programs and ascertainable underwriting standards that contributed to the Department's conclusion that a broadened exemption would be consistent with the requirements of section 408(a) of the Act.

The Department wishes to specifically point out that the granting of this exemption should not, in any way, be construed as encouraging or endorsing plan investments in residential mortgages. Rather, it is the Department's objective to adequately respond to the applications for exemption submitted fo transactions of the subject type and, in so doing, to remove, where the applicable statutory findings can be made, barriers that may exist to such plan investments. Decisions regarding specific plan investments or an investment course of action must, of course, be made by appropriate plan fiduciaries and must be consistent with the Act's fiduciary standards including the prudence standard contained in section 404(a)(B). The Department wishes to emphasize, for example, that any mortgage loan (or program of mortgage loans) which is acquired by an employee benefit plan, must be considered as a plan investment or investment course of action. Because the investment would be selected (if at all) in preference to other investment alternatives, it would generally not be prudent if the investment or investment course of action provided the plan with less return, in comparison to the risk involved, than comparable investments or investment courses of action available to the plan; or, alternatively, involved a greater risk to the security of plan assets than such other investment or investment course of action offering similar return.[4]

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[2] Carpenters Pension Trust Fund of Detroit and Vicinity, D-2421, Carpenters Pension Fund of Illinois, D-2674, and the United States League of Savings Associations (D-2875). The Department

As proposed, and as granted, the exemption provides both prospective and retroactive relief. Unlike the proposal, however, certain conditions are applicable only prospectively (see detailed discussion below). The Department wishes to specifically note that no exemption is provided either prospectively or retroactively, from the prohibitions of section 406(b) of the Act. Thus, for example, if a plan acquires mortgages (even if the mortgages are "recognized mortgage loans") in a transaction which violates section 406(b) of the Act, this exemption will not apply to exempt plan fiduciaries from such violations.

Finally, the Department notes that section 3.04 of ERISA Procedure 75-1 provides that an application for an individual exemption will not ordinarily be considered separately if a class exemption which would encompass the transaction has either been the subject of an exemption proceeding or is under consideration. Nevertheless, the Department recognizes that there may be circumstances involving the general types of transactions which are the subject of this class exemption that deserve separate consideration. Accordingly, the Department will determine, on a case-by-case basis, whether to consider such applications on their merits.

Disucssion of the Comments

A. Transactions

1. *Plan Acquisition of Mortgage Loans.* Pursuant to the applicants' request, the transactions covered by the proposed class exemption were limited to plan acquisitions of whole mortgage loans on new residential units pursuant to a commitment. Many commentators noted that limiting purchases to those made pursuant to a commitment unduly restricted a plan's investment flexibility, profit opportunity and liquidity. Plans were represented as frequently purchasing mortgage loans on an over-the-counter or immediate purchase basis. Commenting in light of its own pending exemption, the United States League of Savings Associations (USLSA) urged the Department to expand the existing proposal arguing that both the interests of housing and pension plan participants would be best served by a more comprehensive exemption. On the basis of these comments the Department has concluded that it would be appropriate to expand the exemption to cover direct acquisitions as well as those made pursuant to a prior commitment.

2. *Acquisition of Participation Interests.* Several commentators also suggested that the principles and protections embodied in the exemption would be equally applicable to plan acquisitions of loan participations. A loan participation was described as an agreement involving the ownership in common of mortgage loans by two or more investors. A typical transaction was represented as one where an orginating lender retains a small interest and sells the remainder to an institutional investor. The originating lender would hold equitable title in the underlying mortgage(s) and "service" the mortgages for all interest holders by, e.g., passing through periodic payments of principal and interest on a pro rata basis and sharing in any losses on the same basis. These agreements are

security" arrangements;[5] however, that exemption did not provide relief for the purchase of a participation interest in individual loans. According to one commentator, participation interests are generally structured as investment contracts rather than the grantor trusts used in PTE 81-7. It was represented that while on the smaller scale, this activity accounts annually for a substantial level of investment in the secondary market financing of residential mortgage loans. In support of this form of investment the commentator argued that the purchase of a participation interest could result in greater protection for an investing plan since the risks are shared with the originating lender who generally retains an interest in the loan(s) sold.[6] In addition, the class application filed by the USLSA requested relief for the acquisition of participation interests by plans both for over-the-counter transactions and pursuant to a prior commitment.

The Department believes that the process under which plan decisions are made along with the protections inherent in any continuing arrangement are crucial elements in evaluating whether the statutory criteria for granting administrative relief have been satisfied. Based on the description of these arrangements provided by the USLSA, among others, which indicates that the role of an seller/servicer may generally be restricted to essentially mechanical functions and because the exemption requires that any plan decision to acquire a participation interest be made by an independent fiduciary the Department is able to expand the exemption to include both the commitment to purchase and the direct purchase of a participation interest in mortgage loans.

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[4] Department of Labor Advisory Opinion 81-12A, January 15, 1981.

[5] Prohibited Transaction Exemption 81-7 (PTE 81-7) (46 FR 7520, January 23, 1981.)

[6] The Depository Institution Deregulation and Monetary Control Act of 1980 Public Law 96-221; 94 Stat. 132, 12 U.S.C. 1724 *et seq.* resulted in the removal of the mandatory retention requirement by the originating lender from the Federal Savings and Loan Insurance Corporation regulations (12 CFR 563.9-1 withdrawn 45 FR 76095 Nov. 10, 1980). However, it is represented as a practical matter, that originating lenders generally still retain a limited (5 percent) ownership in participation interests which they create. This retention of 5 percent is required should they seek to sell such participation interest to FHLMC (Section 3.102 FHLMC Sellers Guide for Conventional Mortgages) or FNMA (FNMA Form 637, Appendix F, FNMA Conventional Home Mortgage Selling Contract

3. *Pooling of Assets by Plans.* Section 404(a)(1)(C) of the Act requires a plan to diversify the investments of the plan so as to minimize the risk of large losses. One commentator suggested that many smaller plans interested in investing in mortgage loans believe they are precluded from doing so because of the amount of plan assets needed to purchase either a participation interest or a whole mortgage.

In its application the NAHB requested consideration be given to the creation of nonprofit corporations established by regional, state or local home building associations (HBAs) affiliated with NAHB to assist plans in pooling financial resources for mortgage investment. In the proposed exemption, the Department responded that the inclusion of relief for such HBA arrangements was not necessary in order to achieve the purposes for which the exemption was requested. the Department noted the availability of section 408(b)(2) of the Act and interpreting regulations (29 CFR 2550.408b–2) which provided, if certain conditions were satisfied, an exemption from the provisions of section 406(a) of the Act. The Department agrees that the pooling of funds, in certain situations, may be a suitable form of investment; however, it will not advocate any specific format for such pooling. The Department believes the exemption, as modified to include acquisition of participation interests, should adequately address these concerns.

4. *Sales of Mortgage Loans or Participation Interests.* One commentator noted that the proposal failed to include as a separate covered transaction the sale of a mortgage loan held by a plan. While noting that pension plans are likely to retain mortgage investments until their maturity, the commentator suggested that their sale may be desirable from time to time. Therefore, the Department was urged to revise the list of transactions to include the sale of mortgage loan or participation interest investments. The Department has adopted this comment and modified the final exemption accordingly.

5. *Servicing of Mortgage Loans or Participation Interests.* Several commentators urged the Department to expand the exemption to include relief for the provision of services incidental to the purchase of a mortgage. As explained by the applicants and discussed in the comments, plans would purchase morgage loans from a financial institution and retain that institution, or a similar financial institution to "service" the loan by collecting and remitting to the plan the installment payments made by the borrower. In the event of a default this entity would be responsible for protecting the plan's interests under any foreclosure proceeding including rights available under any Federal or private insurance or guaranty program. This servicing is a separate contractual arrangement between the parties distinct from the purchasing of the mortgage loan. Where this servicing arrangement satisfies the conditions of section 408(b)(2) of the Act and applicable regulations, no additional administrative relief would appear to be necessary or appropriate.

B. Conditions

1. *Established Financial Institution.* For purposes of the exemption the term "established financial institution" was defined as an investment manager described in section 3(38) of the Act with respect to the plan, or a savings and loan association subject to regulation by the Federal Home Loan Bank Board, which, in the normal course of its business, engages in trnasactions described in this exemption.

As stated in the proposal, the Department viewed the existence of an independent decision maker ("established financial institution") as a significant factor in its ability to propose exemptive relief. In recognition of the fact that the condition requiring that the commitment decision be made by such Department invited specific comments regarding this condition. Several commentators urged the Department to delete the condition as unnecessary or proposed a variety of alternatives to this independent fiduciary. Other commentators suggested that, as proposed, the exemption was not protective enough and urged the Department adopt additional safeguards to ensure that the investment decisions were made in the best interests of plan participants and beneficiaries.

In the context of a request for relief for such a large and varied class of persons, the Department has determined that the suggested approaches either did not afford adequate protection or would result in an arbitrary approach that would depreive plans of desirable flexibility in establishing a mortgage investment program which best suits their individual needs. After considering the range of alternatives presented, the Department is unable to conclude that any of the suggested alternatives is appropriate, in the context of a class exemption, to provide the protections which would enable the Department to make the findings necessary to grant exemptive relief.

The Department has determined, based in large part, on the additional protections which are inherent in the adoption of the "recognized mortgage loan" standard in the final exemption, that the potential for abuse has been minimized so that additional protection beyond those proposed need not be included in this condition. The Department has determined to retain the role of an independent fiduciary in the decision making process as proposed. The categories of entities who may serve in such capacity, however, have been broadened.

As indicated in the summary of the proposed exemption above, the involvement of an "established financia institution" was required both with respect to the commitment decision and the financing or loan origination process. Many commentators expressed concerns regarding the Department's application of the term in both conditions.

that the residential financing industry contains a wide range of institutions, currently active in the mortgage market, with the knowledge and experience to make commitment type decisions which were not included in the proposed definition. Several of the commentators urged the Department to expand the list of "established financial institutions" and suggested what they considered to be appropriate additions.

Rather than expand a listing of specifically eligible institutions, the Department has decided to delete the term "established financial institution" from the final exemption and develop a new term to describe those persons eligible to make commitment decisions on behalf of employee benefit plans. The term"qualified real estate manager," as described below, provides a more flexible standard of eligibility—that of acceptance in the marketplace.

Several comments expressed concern whether the independent fiduciary envisioned by Condition C of the proposed exemption would be able to maintain sufficient independence. Clearly, what the Department seeks to prevent is the existence of influence which may affect the exercise of the fiduciary's best judgment. This, in the Department's view, is an inherently factual matter based on the facts and circumstances of the particular relationship existing at that time. The Department believes that all the conditions contained in the final exemption, taken together, provide an adequate basis for granting the exemption.

Other commentators posed a related concern by noting that trustees of a plan often provide certain guidelines or investment policies to those making investment decisions on behalf of a established by other plan fiduciaries. The Department considers that under section 404(a)(1)(B) of the Act, a fiduciary has a duty not to act in accordance with a delegation of plan investment duties to the extent that such fiduciary either knows or should know that the delegation involves a breach of fiduciary responsibility.

Condition D of the proposed exemption required that financing be provided through an "established financial institution" which selects the recipient and originates the loan based on criteria that are consistent with "customary practices" and which "* * * commonly makes mortgage loans on similar terms and conditions from its own funds." The comments suggested that the requirements of the condition served to bar potential providers of this service which in the commentator's view were otherwise qualified. In addition, the comments noted that the "from its own funds" requirement eliminated a major segment of the mortgage investment community from providing such loan origination services when these business enterprises have been recognized as possessing the requisite knowledge and expertise to perform this role. The Department had not intended, by the terms of this condition to unduly limit the categories of parties eligible to provide this service to plans. The record, however, reflects the need to modify the definition describing those entities eligible to provide loan origination services to plans. The Department has determined to delete the term "established financial institution" from this condition and adopt a new definition of an "established mortgage lender" which recognizes the role of parties such as mortgage bankers and the full range of depository institutions which have traditionally provided this service.

Several comments suggested the Department adopt a general definition relating to institutional experience in the mortgage market followed by a comprehensive listing of those incorporates the existing approval processes of those agencies with a congressional mandate to operate in the residential housing market.

The first category under the new definition incorporates those standards developed for lenders who originate loans which qualify for participation in any mortgage insurance program under the National Housing Act.[7] The Department of Housing and Urban Development (HUD) has established a procedure for the approval of such originators.[8] The second category involves lenders who originate conventional loans where qualification procedures have been developed by FNMA [9] and FHLMC.[10] At the request of several commentators the Department has included in its definition of those eligible to provide origination services a third category—state housing finance agencies (HFAs). According to the commentators, HFAs are currently expanding their traditional programs to deal directly with the public as mortgage lenders. The commentators have represented that HFAs have the size and staff capacity to manage all mortgage purchase operations of pension plans. It has also been suggested that in some regions of the country, HFAs may be one of the primary mortgage lenders. Therefore, the Department has included these entities in its definition of an "established mortgage lender."

One commentator raised the question whether the discretion exercised by an originator in qualifying a buyer would be construed by the Department as fiduciary conduct. Section 3(21) of the person is a fiduciary with respect to a plan to the extent (1) he exercises any discretionary authority or discretionary control respecting management of such plan or exercises any authority or control respecting management or disposition of its assets * * *" In the Department's view the decision to invest plan assets in residential mortgage financing is a fiduciary decision. Once the decision is made either to issue a commitment on particular terms, or invest directly in certain morgage loans, the Department is of the view that the specific actions of qualifying a buyer consistent with those terms would generally not constitute fiduciary conduct.

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[7] Public Law 479, 73rd Congress, 48 Stat. 1246, 12 U.S.C. 1701 *et seq.*

[8] 24 CFR 203.1 *et seq.*

[9] FNMA Conventional Home Mortgage Selling Contract Supplement, Sections 201–204.

[10] FHLMC Sellers Guide for Conventional Mortgages, Part 1, section 208.

2. *Mortgage Loans and the Requirement of "Customary Practices".* Condition E of the proposed exemption required, among other things, that the mortgage loan to be acquired be "consistent with customary practices in the residential mortgage industry." This condition was included to indicate the Department's concern that mortgage loans to be acquired by a plan be of investment quality and marketable to insure some measure of safety and liquidity. As discussed above, the Department's position regarding prudence in investment does not seek to restrict the range of investment options available to a plan. However, where the subject investments would violate the prohibited transactions rules of the Act, the Department has an obligation to consider those investments in light of the statutory criteria for granting administrative relief.

Several commentators pointed out that the economic climate of recent years has had a significant impact on the residential mortgage market. The impact appeared to have been most evident in the mortgage instruments used in financing. The result has been the creation of a number of "alternative mortgage instruments" (AMIs). These AMIs have achieved varying degrees of recognition; however, as indicated by the comments, in many cases this acceptability could not be equated to a "customary practice in the residential mortgage industry."

the language "customary practices in the residential financing industry," does not establish an adequate standard against which plan fiduciaries may judge, with the necessary degree of certainty, compliance with this condition of the exemption. In developing a more objective standard, the Department has adopted the suggestion of some commentators and modified the condition by requiring that those mortgage loans to be acquired under this exemption must be eligible, through an established program, for purchase by one of the Agencies. Therefore, Condition E of the proposed exemption, has been modified to reflect the "recognized loan" standard.

Adopting the "recognized mortgage loan" standard also enables the Department to address another concern raised in several comments relating to Condition E of the proposed exemption. By limiting the allowable security to first liens on a residential unit, investments in junior or second liens were precluded. Several commentators suggested that properly underwritten, fully amortizing *second mortgage liens can offer* investors a combination of safety, high yield and short maturities which could allow for a further diversification of pension fund portfolios. Another commentator argued that, in enacting the Depository Institution Deregulation and Monetary Control Act of 1980, Congress recognized that the loan-to-value ratio rather than lien position provides the security for real estate investment by removing the first lien requirement for residential real estate lending. To the extent that nationwide programs are operated by the Agencies for the purchase of mortgage loans secured by junior or second liens, such liens would satisfy the "recognized mortgage loan" requirement.

The third requirement of Condition E required that the terms of the mortgage loan be at least as favorable to the plan as the terms of a loan involving unrelated parties. No comment was received regarding this issue, accordingly the Department has incorporated this language in the final exemption.

3. *Joint Commitment and Origination Services.* Condition F of the proposed or would be involved with the provision of loan origination services would not be eligible to exercise discretionary authority or control or provide commitment advice to a plan. Several comments suggested that this condition was not necessary, given the protections provided through the other conditions and the fact that the proposed exemption did not extend to section 406(b) of the Act. Two commentators expressed concern that the effect of the condition was to mandate the involvement of two financial institutions which would disrupt the traditional practice of mortgage lenders providing both construction and permanent financing. The Department does see a potential for abuse where a financial institution involved with the construction financing would make decisions on behalf of a plan, for the provision of permanent financing.

The Department has not been pursuaded by the arguments of the commentators who urged that the condition be deleted. However, the arguments of the commentators that, as presently drafted, the condition would mandate the involvement of two financial institutions and thereby add significant costs to the investment process has been accepted. As modified, this condition would permit an originator to make the decision to purchase (whether directly or pursuant to a commitment), provided it was not at the time of the decision the owner of a mortgage loan or participation interest therein which is subsequently sold to the plan. The sequence of events where an originator makes "recognized mortgage loans" after a commitment has been made with the intent on selling them to the plan is consistent with the Department's understanding of the origination-purchase form of acquisition by a plan.

4. *Restrictions on Borrowers.* Condition G of the proposed exemption which limited the eligible party in interest (as defined in section 3(14) of the Act) borrowers was based on the relief requested by one of the original applicants. Three comments, including those of both the NCCMP and the NAHB, suggest that with the existing

The Department accepts the arguments and has eliminated the condition from the final exemption.

5. *Loan Servicing by Plans.* Condition H of the proposed exemption provided that where plans serviced loans, as opposed to contracting with a professional servicing organization, such plans were required to establish written procedures that were consistent with customary industry practices. No comments were received on this condition; however, the Department has reconsidered the necessity for a condition of this type in light of the other protections contained in this exemption and has determined to delete the condition from the final exemption. Plans which choose to service loans which they have made or purchased must obviously do so in accordance with the general fiduciary duty requirement of prudence found in section 404(a)(1)(B) of the Act. However, the procedures suggested in this condition deserve consideration in making a determination about the appropriate procedures to adopt.

6. *Retroactivity.* At the request of the applicants, the proposed exemption provided retroactive relief based on the representation that the transactions involved were customary for the residential mortgage financing industry. The comments noted that residential mortgage lending programs may be structured in a variety of ways and that it would not have been unreasonable for some plans to have made commitment decisions themselves and retained an independent financial entity only to originate the mortgage loans. The Department acknowledges that certain of the conditions—namely the requirements of an independent fiduciary decision and recordkeeping—may not have been reasonably consistant with the approach taken by the Department in other class exemptions involving similar issues.

C. Definitions

1. *Residential Dwelling Unit or Unit.* The "transactions" section of the proposed exemption limited the type of unit eligible for purchase to "new" units. All comments which discussed this issue opposed the limitation as one which unjustifiably restricted pension fund investment flexibility. One commentator pointed out that "new" unit sales accounted for only one-third of all homes sold nationwide during a recent three-year period. To provide the broadest possible range of investment options, the Department has determined that the final exemption should not contain any limitation to "new" housing.

According to many comments, the phrase "single family residential dwelling unit," without further clarification, may create confusion. One commentator noted that long standing mortgage lending practices, including government guaranty and secondary market programs, have resognized loans on "two to four unit structures" as an extension of the "single family" loan. The commentators note the Department acknowledged this definition in PTE 81–7. The Department has accepted these comments and utilized the PTE 81–7 definition of "non-farm property comprising one to four dwelling units" in the final exemption.

Two of the commentators urged the express incorporation of manufactured housing [11] as a unit eligible for purchase under the final exemption. The comments further stated that mortgages secured by such housing were eligible for purchase in the secondary market by GNMA, FNMA and FHLMC under their single family purchase programs. Based on the positions taken by the Agencies, the Department has decided to include the specific reference in the definition.

Several commentators suggested the inclusion of two other types of multiple family housing units—cooperatives and rental units. Cooperative housing for purposes of this exemption would be financing for individual unit purchases as opposed to project financing under a blanket mortgage for the land and its improvements. Unit financing is not secured by a mortgage on the unit, but rather by a lien on the share or membership interest associated with that unit and rights under the proprietary lease which governs occupancy. The commentators noted that this form of housing has gained market acceptance in the major metropolitan areas throughout the country. The Department has included this form of ownership interest in the definition because in many ways it provides a parallel form of individual ownership in multiple unit properties to that of condominiums. However, other conditions of this exemption may affect the purchase of a cooperative housing unit. As discussed above, to be eligible for acquisition by a pension plan a mortgage loan must be a "recognized mortgage loan." While the Department understands that cooperatives are eligible for purchase by FNMA, to date no established program is in operation—a prerequisite to meeting the requirements of a "recognized mortgage loan." Therefore, the Department's inclusion of cooperatives in the definition of a "residential dwelling unit" is an example of the Department's intent to make this class exemption one which will evolve with the recognized marketplace.

Those commentators which urged the Department to further expand its definition of eligible housing units to include multiple unit rental structures noted the market for this type of housi and the fact that purchase programs exist which could provide the nationally recognized standard for such loans.

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[11] Manufactured housing means a manufactured home as defined in section 603(b) of the National Manufactured Housing Construction and Safety Standards Act of 1974 (Pub. L. 93–383, 88 Stat. 700 as amended by Pub. L. 96–399, 94 Stat. 1641, 12 U.S.C. 5402(6)) and which is used as a residence.

housing units differ both in magnitude and complexity from the one to four unit structures contemplated by this exemption. After considering the issue, the Department has determined it would not be appropriate to include multiple unit rental housing in this exemption.

The definition of a "residential dwelling unit" also contained a reference to planned unit developments and included a requirement which limited the "* * * use of the *property* to residential purposes * * *" (emphasis added). Two commentators noted that planned unit developments frequently contain varying amounts of commercial or retail space to provide convenience services. To eliminate the concern over the scope of the intended limitation, the exemption has been modified by substituting "unit" in place of "property" in the language of the definition.

The express language of the definition also imposed an "owner occupied" restriction on the units covered by the proposed exemption. The commentators suggested that the majority of units to be financed under this exemption would be owner occupied; however, such limitation may restrict investment opportunities. By permitting mortgages for some investor units, it was argued that a commitment would become more attractive to a developer, command higher commitment fees and subsequently more favorable interest rates in the event such mortgage loans are subsequently originated. One comment noted that borrowers may represent an intention to occupy and then, for a variety of reasons, be forced to rent the unit. This change in the character of the occupant, it was urged, should not void the exemption in whole or in part. The Department accepts the suggestion. Once a unit has satisfied the conditions for acquisition, a subsequent change in the character of the occupant would not void the applicability of the exemption. It was also noted that industry practices provides essentially the same underwriting standards for investor unit mortgages except that the maximum mortgage on investor units is limited to 80 percent of value whereas owner-occupied mortgages may go up to

units within the definition of a "residential dwelling unit" to the extent it satisfies recognized industry practices as outlined above.

Description of Exemption

Although the exemption retains the same basic format as the proposal, it has been largely restructured to reflect the substantial modifications discussed above.

Part I of the Exemption describes those categories of transactions to which the exemption applies. As discussed above, the acquisition transactions have been expanded to include the direct purchase of whole mortgages and the acquisition of participation interests in mortgages both directly and pursuant to a commitment. In addition, the exemption now covers sales, exchanges and transfers of such mortgage investments to parties in interest. These covered transactions are in addition to those originally proposed in the notice.

It should be noted, that the exemption provided for sales, exchanges or transfers under Section E of Part I, does not restricting such dispositions to mortgage investments acquired pursuant to this exemption. However, it does not permit the plan to dispose of less than its entire interest in the mortgage investment to or for the benefit of a party in interest.

Also, interested parties are reminded that no exemption is provided for transactions which constitute violations of section 406(b) of the Act. The record of this exemption suggests that plans may acquire participation interests from a "recognized mortgage lender" where that instituion retains a noncontrolling interest in the participation agreement and continues to serve the mortgage(s) underlying that agreement. However, the conditions of the exemption do not contemplate any situation in which the seller/servicer would become a fiduciary of the plan under section 3(21) of the Act. There may be situations in the operation of a participation agreement under which the seller/servicer does become a fiduciary by virtue of the authority it retains, e.g., with respect to the decisions regarding

conditions which are to be met if the transactions described in Part I are to b exempt. Section A provides those conditions which are applicable retroactively to January 1, 1975, the effective date of the fiduciary responsibility provisions of the Act. Section B provides conditions which apply prospectively, beginning 30 days after the date of publication of this exemption. The delayed effective date i provided in order to give affected parties ample opportunity to adopt procedures necessary to implement these conditions.

Subsection (1) of section A sets out these conditions which are applicable, retroactively and prospectively, to all covered transactions.

Paragraph (a) provides that any mortgage investment acquired by a plan pursuant to the exemption must be a "recognized mortgage loan" for the purchase of a "residential dwelling unit." Both of these terms are defined in Part III of the exemption.

Paragraph (b) requires that a covered mortgage investment must be originated by an "established mortgage lender." This originator, who will qualify the borrower, must not be subject to a controlling influence regarding its management or policies by the plan, a contributing employer or group of contributing employers or participating employee organization.

Paragraphs (c) and (d) are substantially the same as appeared in the proposal. Paragraph (d), however, has been modified to reflect the expansion of categories of transactions covered by the exemption. In addition, this provision has been changed to reflect the possibility that plans may acquire mortgage investments from an entity, which purchases are technically from inventory, but which were originated pursuant to a prior commitment made on behalf of the plan.

Subsections (2) and (3) of Section A establish specific conditions which mus be met, as applicable, both retroactively and prospectively, if the subject transaction involves a commitment or a participation. The conditions regarding commitments are essentially those contained in the proposed exemption

The conditions addressing participations are based on the Department's understanding of the operation of participation agreements and are designed to provide protections to a plan and its participants and beneficiaries regarding the operation of such an agreement.

Section B provides certain conditions which become applicable 30 days after the date of publication of this exemption.

Subsection (1) requires, as did the proposal, that plan decisions to purchase or sell mortgage investments must be made by an independent fiduciary who is not subject to a controlling influence by certain interested persons. This condition is applicable to all covered transactions. The independent fiduciary is referred to as a "qualified real estate manager" a term defined in Part III of the exemption.

Finally, subsection (2) provides certain recordkeeping requirements which were contained in the proposal. In view of the comments received concerning this requirement, it has been made prospective only.

Part III contains definitions of terms used in the exemption.

Section A defines the term "affiliate" for purposes of the exemption. The definition is the same as has appeared in other class exemptions issued by the Department.

Section B defines the term "established mortgage lender" as an entity which, in the normal course of its business, is engaged in making or purchasing mortgage investments, and either has the approval of HUD to participate in mortgage insurance programs under the National Housing Act, has been approved to act as a seller/servicer for FHLMC or FNMA programs, or is a state housing agency or independent state authority. This term replaces the term "established financial institution" as it applied to the condition of the proposed exemption governing mortgage loan originations. (See Section D of Part II of the proposal.) This new provision is designed to assure that those providing origination services to a plan meet a professional financial standard and are subject to the continuing oversight of independent

that mortgage investment decisions be made on behalf of a plan by an independent fiduciary. Section C contains the term "qualified real estate manager" a term intended to replace the "established financial institution" used in the proposed exemption. Under the new definition this independent fiduciary is required to be a financial institution which, in the normal course of its business, provides institutional investors with advice regarding mortgage investments and acknowledges in writing its fiduciary responsibilities to the plan. Under this definition many more entities will be eligible to provide the required advisory services to plans than would have been the case under the proposal. The Department believes that the interests of plans will be served and protected under the exemption as granted without the necessity of unduly restricting the ability of responsible plan fiduciaries in choosing their investment advisors.

Section D defines the term "recognized mortgage loan" as the only type of loan covered by the exemption. This term is defined as a mortgage loan on a "residential dwelling unit" which, at its origination was eligible for purchase through an established program by the FHLMC, FNMA or GNMA. Because these agencies have established programs for the acquisition of certain kinds of mortgages and, in so doing, have established extensive underwriting criteria for such loans, the Department has found it possible to provide an exemption under a set of standards which is more flexible than was the case in the original proposal and at the same time provides very substantial protections to plans, their participants and beneficiaries. These agencies, in addition to setting standards, maintain an active secondary market in qualifying mortgages and maintain standards for originators and servicers as well. In light of these readily ascertainable and understood standards for the making of mortgage loans maintained by these agencies, the Department, by conditioning this exemption on the satisfaction of those standards, has been able to provide substantial relief without the necessity

aspects of this exemption, this definition has been substantially broadened from the proposal.

General Information

The attention of interested persons is directed to the following:

1. The fact that a transaction is the subject of an exemption granted under section 408(a) of the Act and section 4975(c)(2) of the Code does not relieve a fiduciary or other party in interest with respect to a plan to which the exemption is applicable from certain other provisions of the Act and the Code, including any prohibited transaction provisions to which the exemption does not apply and the general fiduciary responsibility provisions of section 404 of the Act which, among other things, require a fiduciary to discharge his duties respecting the plan solely in the interest of the plan's participants and beneficiaries and in a prudent fashion in accordance with section 404(a)(1)(B) of the Act; nor does it affect the requirement of section 401(a) of the Code that a plan must operate for the exclusive benefit of participants and beneficiaries.

2. This exemption does not extend to transactions prohibited under section 406(b) of the Act or section 4975(c)(1)(E) and (F) of the Code.

3. This exemption is supplemental to and not in derogation of any other provision of the Act and the Code, including statutory exemptions and transitional rules. Furthermore, the fact that a transaction is subject to an administrative or statutory exemption is not dispositive of whether the transaction is in fact a prohibited transaction.

4. The class exemption is applicable to a particular transaction only if the transaction satisfies the conditions specified in the class exemption.

Exemption

In accordance with section 408(a) of the Act and section 4975(c)(2) of the Code, and based upon the entire record including the written comments the Department makes the following determinations:

(a) The class exemption set forth herein is administratively feasible;

(b) It is in the interests of plans and of their participants and beneficiaries; and

(c) It is protective of the rights of participants and beneficiaries of plans.

Accordingly, the following exemption is hereby granted under the authority of section 408(a) of the Act and section 4975(c)(2) of the Code and in accordance with the procedure set forth in ERISA Procedure 75–1.

I. Transactions

Effective January 1, 1975, the restrictions of section 406(a) of the Employee Retirement Income Security Act of 1974 (the Act) and the taxes imposed by section 4975 (a) and (b) of the Internal Revenue Code of 1954 (Code) by reason of section 4975(c)(1)(A) through (D) of the Code shall not apply to the following transactions if the conditions set forth in Part II below are met:

A. The issuance of a commitment by one or more employee benefit plans to provide mortgage financing to purchasers of residential dwelling units, either by making or participating in loans directly to purchasers or by purchasing mortgage loans or participation interests in mortgage loans originated by a third party;

B. The receipt by the plan of a fee in exchange for issuing such commitment;

C. The actual making or purchase of a mortgage loan or participation interest therein pursuant to such commitment;

D. The direct making or purchase by one or more employee benefit plans of a mortgage loan or a participation interest therein other where a commitment has been issued; and

E. The sale, exchange or transfer of a mortgage loan or participation interest therein by an employee benefit plan prior to the maturity date of such instrument whether or not acquired pursuant to this exemption, provided that the ownership interest sold,

II. Conditions

A. Effective January 1, 1975, the exemption provided for transactions described in Part I is available only if each of the following conditions, as applicable, is met:

(1) General Conditions

(a) Any mortgage loan to be acquired must be a "recognized mortgage loan" (as defined in Section D of Part III) or a participation interest in such loan for the purchase of a "residential dwelling unit" (as defined in Section E of Part III).

(b) Any mortgage loan must be originated (either directly for the plan or by the origination-purchase process) by an "established mortgage lender" (as defined in Section B of Part III); (i) who qualifies the recipient and (ii) as to which neither the plan, nor an employer or group of employers contributing to the plan, nor an employee organization any of whose members are covered by the plan, has the power to exercise a controlling influence over the management or policies of such "established mortgage lender";

(c) The price paid or received by the plan must be at least as favorable to the plan as a similar transaction involving unrelated parties; and

(d) No person who is a developer or a builder involved in the development or construction of the units, or a lender who is associated with the construction financing arrangement for the units, or who, at the time the decision to purchase is made by the plan (whether directly or pursuant to a commitment) is the owner of a mortgage or a participation interest therein which is subsequently sold to the plan, shall have exercised any discretionary authority or control or rendered any investment advice that would make that person a fiduciary with respect to the plan's decision to purchase, or to commit to purchase, a mortgage loan or a participation interest therein or setting the terms thereof.

(2) Specific Conditions Applicable to Commitments

Where the decision by the plan involves a commitment to purchase either a mortgage loan or participation the residential finance industry; and

(b) The commitment must provide for the use of underwriting guidelines and mortgage instruments which will ensure that all mortgage loans originated pursuant to such commitment will result in a "recognized mortgage loan";

(3) Specific Conditions Applicable to Participations

Where the acquisition by the plan involves a participation interest in a mortgage loan(s) (whether directly or pursuant to a commitment):

(a) The participation agreement governing such transaction must provide that; (i) the rights and interests evidenced by such participation interest not be subordinated to the rights and interests of other holders of the same participation agreement, (ii) the majority interest in the participation agreement must be owned by parties independent of and not controlled by the person selling the participation interest and servicing the underlying mortgage(s), and (iii) in the event of an inability to obtain collections on any mortgage loan(s) underlying the participation agreement, decisions regarding foreclosure options must be directed by persons other than the seller/servicer; and

(b) Such participation agreement must be in writing and must be at least as favorable to the plan as a participation agreement involving unrelated parties and consistent with customary practices in the residential finance industry.

B. Effective 30 days after date of publication of this notice in the **Federal Register** the exemption provided for tarnsactions described in Part I is available only if each of the following conditions is satisfied in addition to each of the applicable conditions described in section A of this Part II:

(1) The decision to purchase or sell the mortgage loan or participation interest therein, or to issue a commitment to do so, must be made on behalf of the plan by a "qualified real estate manager" (as defined in Section C of Part III) as to which neither the plan, nor an employer or group of employers

e power to exercise a controlling fluence over the management or olicies of such "qualified real estate anager."

(2) (a) The plan shall maintain for the uration of any loan made pursuant to is exemption records necessary to nable the persons described in aragraph (b) of this sub-section to etermine whether the conditions of this xemption have been met, except that; a prohibited transaction will not be eemed to have occurred, if due to rcumstances beyond the control of the duciaries of the plan, records are lost destroyed prior to the termination of e loan and, (ii) no party in interest all be subject to the civil penalty hich may be assessed under section 02(i) of ERISA, or to the taxes imposed section 4975(a) and (b) of the Code, if e records are not maintained or are ot available for examination as quired by subparagraph (b) below.

(b) Notwithstanding any provisions of bsection (a)(2) and (b) of section 504 the Act, the records referred to in sub-aragraph (a) of this paragraph must be nconditionally available at their stomary location for examination uring normal business hours by: any ustee, investment manager, participant beneficiary of the plan, or any duly uthorized employee or representative such person or of the Department or e Internal Revenue Service.

I. Definitions

For purposes of this exemption:

A. References to persons described in is exemption includes their affiliates. n affiliate is defined as:

(1) Any person directly or indirectly, rough one or more intermediaries, ontrolling, controlled by, or under

section 3(15) of the Act) of such person; and

(3) Any corporation or partnership of which such person is an officer, director or partner.

B. An "established mortgage lender" means an organized business enterprise which has as one of its principal purposes in the normal course of business the origination of loans secured by real estate mortgages or deeds of trust and which has satisfied the qualification requirements of one of the following categories:

(1) Approval by the Secretary of the Department of Housing and Urban Development for participation in any mortgage insurance program under the National Housing Act;

(2) Approval by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation as a qualified Seller/Servicer; or

(3) A State agency or independent State authority empowered by State law to raise capital to provide financing residential dwelling units.

C. A "qualified real estate manager" means fiduciary as defined in section 3(21) of the Act who: (1) Is a financial institution or business organization, which in the normal course of business advises institutional investors regarding investments similar to those in which the plan desires to engage and which are described in Part I of this exemption; and (2) acknowledges in writing to the plan that it will make decisions regarding plan investments in mortgage loans or participation interests therein in its capacity as a fiduciary of such plan.

D. A "recognized mortgage loan" is any mortgage loan on a "residential dwelling unit" which, at the time of its origination, was eligible, through an established program, for purchase by the Association of the Federal Home Loan Mortgage Corporation;

E. A "residential dwelling unit" or "unit" means: (1) owner occupied non-farm property comprising one to four dwelling units, including detached houses, townhouses, manufactured housing, condominiums, units in a housing cooperative, or a unit in a multi unit subdivision (planned unit development) restricted by recorded documents which limit the use of the unit to residential purposes and provide for maintenance of common facilities; or (2) certain non-owner occupied units where such unit complies with the uniform underwriting standards required for investor loans to qualify as a "recognized mortgage loan" under this exemption.

Signed at Washington, D.C. this 13th day of May 1982.

Jeffrey N. Clayton,

Pension and Welfare Benefit Programs, Labor-Management Services Administration, U.S. Department of Labor.

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